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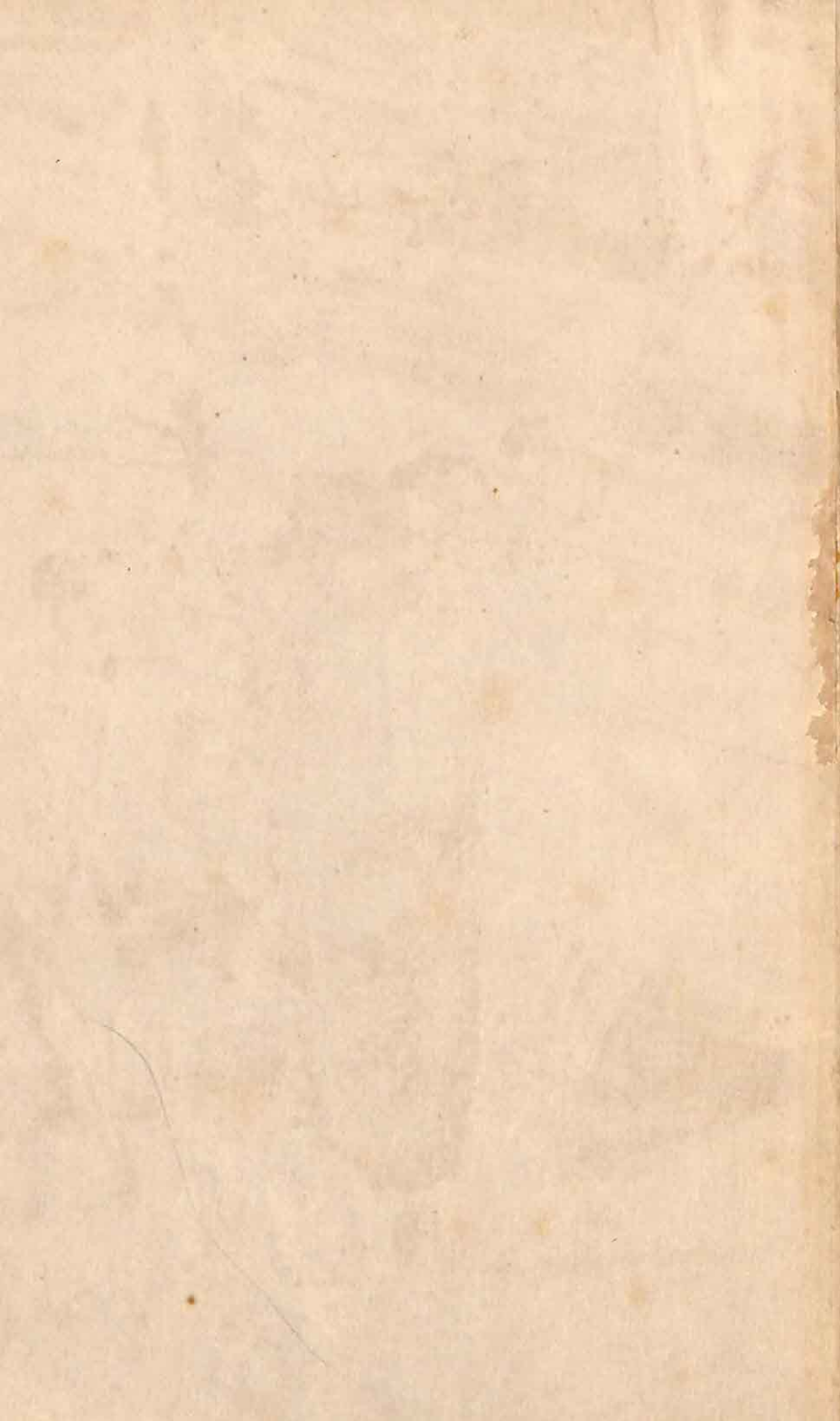
**PRIMARY
TEACHER
EDUCATION
CURRICULUM**

P.T.E.C.

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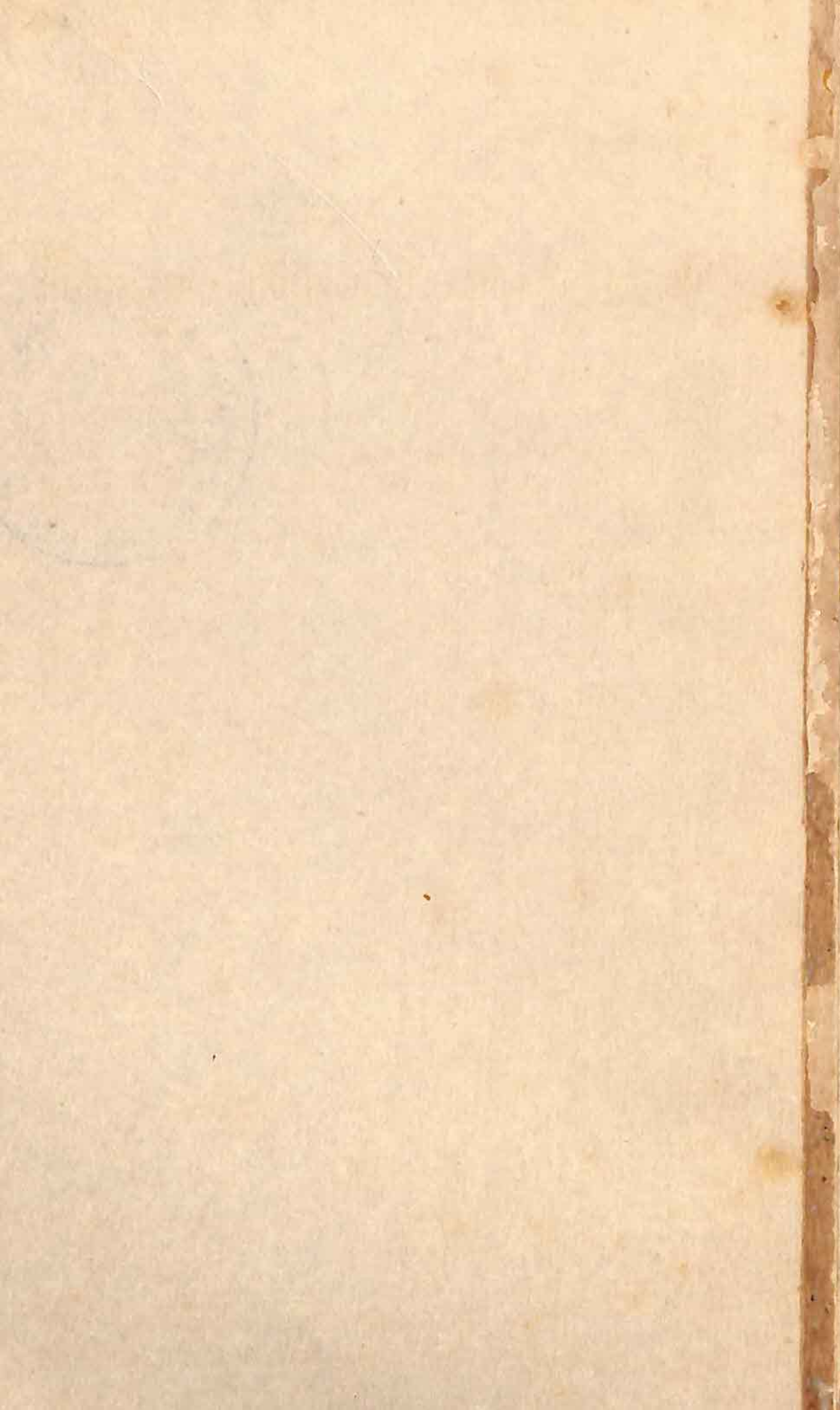
**National Council of Educational
Research and Training**



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P.T.E.C. Series No. 1

Primary Teacher Education Curriculum

*Developed in a National Workshop of Primary
Teacher Educators organized in New Delhi
from 22nd February to 28th February, 1969.*

Project In-Charge

DR. C. S. SUBBA RAO

Research Assistance by

K. R. P. SINGH



Department of Teacher Education
National Council of Educational Research and Training

May 1970

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FOREWORD

Any improvement in the quality of school education is dependent in the final analysis on the quality of instruction in the class-room. This quality becomes poorer as one moves from the higher to the lower levels of education. To improve instruction at the primary stage, however, is very difficult because of the large numbers of teachers involved. The Second Educational Survey shows that for most of the children between six to eleven years age schooling facilities are now available in the country. This achievement of the quantitative target of providing schooling facilities for all of our children is by no means an easy accomplishment. Effort has now to be made to improve the quality of instruction in the class-rooms of these primary schools inspite of the fact that they are in such large numbers and scattered all over the country. One of the ways of attacking this problem is to improve pre-service teacher training for the primary stage. If the syllabus of the primary teacher training institutions can be upgraded and instruction improved in these institutions we will get more well-equipped teachers to teach in our primary schools. Such an upgraded syllabus can also form the basis of inservice education of the existing teachers. It is with this end in view that the Department of Teacher Education has started a programme of curriculum development for teacher training at the primary stage. The syllabi for primary teacher education as recommended in the various parts of the country have been examined, analysed and revised with the help of a representative group of primary teacher educators. The present publication developed from the material prepared by teacher educators in a workshop held in February 1969. The syllabus proposed here is only the first step in the direction of changing and upgrading primary teacher education. Curriculum guides will follow this.

We record with pleasure the cooperation received from the Departments of Education in the various states in the development of the syllabus and particularly from those teacher educators who

were deputed by the states to the Workshop held in February 1969. I am sure that any suggestion which will help to make this syllabus better will be received thankfully by the Department of Teacher Education. This effort of the NCERT will be amply rewarded if it leads to the improvement of primary teacher education.

SHIB K. MITRA

Joint Director

National Council of Educational

Research and Training

October 3, 1969

PREFACE

Involvement and relevance may be hackneyed words often used to give rhetoric emphasis in educational literature dealing with teachers, teacher educators and curriculum. However, these two words have profound meaning and significance in the preparation of any curriculum or in the actual business of teaching. Committees and Commissions on education have repeatedly pointed out the need for revision of syllabi for teacher education so as to make them relevant to the modern needs and development in the field of school education. It has also been emphasised that those whose business is to teach should be involved in formulating such syllabus.

Accordingly, about 40 primary teacher educators representing different States of the country met in a workshop organised by the Department of Teacher Education in February 1969 to draft a national syllabus for primary teacher training institutions. For the guidance of these representatives, experts drawn from different Departments of National Institute of Education (NCERT) were made available. A thorough analysis of the different syllabi at present being used in different states was made in the Department of Teacher Education and a working paper and the analysed data were also made available to the participants in the workshop. Thus the syllabus, that is presented in the following pages, is a combined effort of the various Departments of N.I.E. and state representatives of primary teacher education meeting under the auspices and guidance of the Department of Teacher Education.

The formulation of the draft syllabus was the first phase of this programme at suggesting improvement in the programmes of primary teacher education. In the second phase of this programme, it has been decided to try-out the syllabus in primary teacher training institutions in a state. Accordingly, a meeting was held with the Director of Public Instruction, Punjab, Director of the State Institute of Education, Chandigarh and the representatives

of the Department of Teacher Education. A try-out strategy was worked out in this meeting for the year 1969-70. The results of the try-out will result in the production of instructional materials for student teacher and curricular guides for teacher educators. The curricular guides produced as a result of this try-out will be sent to all the State Departments of Education for critical appraisal and adoption by their institutions. Meanwhile, the syllabus prepared at the national workshop is being circulated to the education departments of all the States and Union Territories with an appeal to try-out this curriculum in their own primary teacher training institutions. We in the Department are interested in helping the State Departments in implementing this programme as well as in receiving the reports of the experience of try-out in their institutions so that the curriculum may be further improved.

The teacher educators from the states, and my colleagues in the Department of Teacher Education and other Departments of the N.I.E. who were constructively involved in drafting the syllabus and making it relevant to the needs of the professional preparation of primary teachers deserve commendation for doing a unique job. No curriculum pattern can ever be perfect or finalized in the dynamic and developing objectives of education in modern times. The curricular offerings will have to be constantly rechecked and revised to involve the actual field workers in experimentation, to motivate the unmotivated and to further stimulate all those who are involved in experimentation. In this effort of the Department we seek co-operation of the State Departments of Education and the institutions, which we hope, will be made available to improve the entire spectrum of teacher education.

J. K. SHUKLA
Head of the Department
Department of Teacher Education

ACKNOWLEDGEMENTS

My grateful thanks are due to Dr.S.K.Mitra, Joint Director, Shri P.N. Natu, Secretary, and Prof. J.K. Shukla, Head, Department of Teacher Education, National Council of Educational Research and Training for their encouragement and guidance in my work.

Shri N.K. Sanyal, Field Adviser, Department of Science Education, Shri D.N. Gaiind and Shri S.C. Chaudhary, Readers of the Department of Curriculum and Evaluation, Dr. B.G. Sharada Devi, Reader, Dr. L.C. Singh and Km. Chanchal Mehra, Lecturers, Deptt. of Teacher Education, worked as resource persons in the national workshop for the development of this curriculum. Their help is appreciated with gratitude.

Smt. Ravi Chopra, Shri T.N.S. Bhatnagar and Shri D.N. Khosla provided technical assistance along with Shri K.R.P.Singh and Smt. Ravi Chopra also helped in the tabulation of some data pertaining to the pattern of Primary Teacher Education in the content analysis of the existing syllabi placed before the workshop. I thank these departmental officers for their hard work and achievements.

The Governments of Bihar, Punjab and Chandigarh Administration agreed to try-out this syllabus during 1969-71 in all the training schools under their jurisdiction. The National Council of Educational Research and Training appreciates this good gesture of Bihar, Punjab and Chandigarh Education Departments and offers its hearty thanks to the Directors of Public Instruction and other officers including members of the S.I.E.s. of these states.

Special thanks are due to Dr. (Miss) B.G.Sharada Devi, Reader, Department of Teacher Education who helped unsparingly in the development of manuscript and production of this syllabus. She also compiled the bibliography with the help of Shri T.N.S. Bhatnagar. I thank Dr. L.C. Singh who has gone through the manuscript and made several suggestions for improvement. I thank

Shri S.C. Chaudhuri and Dr. M.T. Ramji of the Department of Pre-Primary and Primary Education and Shri K. V. Rao and Shri K.S. Bhandari of the Department of Science Education for their help in finalizing the syllabi in work experience and Art Education, languages, Mathematics and General Science respectively.

DR. C.S. SUBBA RAO

Field Adviser

August 1, 1969

Department of Teacher Education

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1. The purpose of this document is to provide a comprehensive overview of the current state of the project and to identify the key areas for improvement. This document is intended for the use of the project team and management.

2. The project has been progressing well, with significant milestones achieved. However, there are several areas that require attention and improvement. These areas include:

- 2.1. Project Management: The project management process needs to be refined to ensure better communication and coordination among team members.
- 2.2. Resource Allocation: Resources are being allocated inefficiently, leading to delays and increased costs.
- 2.3. Quality Control: There is a need for a more robust quality control system to ensure that the project deliverables meet the required standards.
- 2.4. Risk Management: The risk management process needs to be strengthened to identify and mitigate potential risks early in the project lifecycle.

3. The following actions are recommended to address the identified areas for improvement:

- 3.1. Project Management: Implement a more structured project management framework, including regular team meetings and clear communication channels.
- 3.2. Resource Allocation: Conduct a thorough review of resource allocation and optimize the distribution of resources to improve efficiency.
- 3.3. Quality Control: Develop a comprehensive quality control plan that includes clear criteria and a systematic approach to testing and validation.
- 3.4. Risk Management: Establish a risk management process that includes regular risk assessments and a clear plan for risk mitigation.

4. The project team is committed to addressing these issues and ensuring the successful completion of the project. Regular communication and collaboration are essential for achieving the project goals.

Preamble

A) Introduction

The Department of Teacher Education, National Institute of Education, NCERT, New Delhi conducted a thorough analysis of all types of primary teacher education curricula at all levels in operation in all the states till the academic year 1968-69.

This analysis was put before a group of forty primary teacher educators drawn from all the states for a workshop in February 1969 to develop a realistic and functional Primary Teacher Education Programme for secondary school graduates.

The following are some of the unique features of this new programme:

1. The syllabus is objective and practical oriented.
2. For every theory item in the syllabus, the corresponding practical work for the application of the theory is shown under learning experiences a major portion of which will form part of sessional work.
3. The Education Commission's recommendations, recent trends and problems of primary education have been taken into consideration while recommending the various programmes for equipping the teacher effectively.
4. Evaluation procedures are built into this programme by providing ample suggestions for sessional work which can be objectively evaluated to measure periodically the understandings of the student teacher.
5. The new syllabus is based on the research data and conclusions of the analysis of the primary teacher education curricula conducted in the Department of Teacher Education, NCERT.
6. The dead wood accumulated in the traditional curricula is chopped off by clearing all the syllabus items which had no

relevance to the actual tasks of the primary school teacher.

7. The class-room teacher educators of different subject fields from all states are involved for the first time in the development of this programme.

The draft syllabus developed in the workshop was carefully examined and edited by a team of subject experts from the NCERT at national level and from the S.I.E., Chandigarh and the Education Departments of Punjab and Chandigarh at state level.

It consists of four general professional courses, seven content and methodology courses, including work experience and art education, and one seminar course on student teaching.

A number of practical sessional work items related to the theory portions have been suggested as learning experiences which can be meaningfully organised and internally assessed.

This syllabus is intended for try-out in a realistic situation in primary teacher education institutions with the active co-operation of the State Institutes of Education, Principals and staff of Primary Teacher Education Institutions and educational administrators in a state willing to undertake this experiment.

As a by-product of this experiment there is a possibility of developing instructional material consisting of reading material for student teachers and curriculum guides for teacher educators in both content and professional courses, while revising the syllabus on the basis of try-out data.

B) Objectives

Objectives of the total programme are summarized below:

I. General

1. To prepare the teacher for primary schools of 1 to 7 or 8 classes;
2. To prepare the teacher to meet the educational needs of changing society;

3. To equip the teacher with necessary knowledge and skills to help the school children develop integrated, balanced and wholesome personality;
4. To equip the teacher to educate school children for social democratic leadership and followership.

II. *Knowledge and Understandings*

To help the teacher to acquire knowledge and understanding of:

- a) Curriculum, methods and evaluation procedures in primary schools;
- b) The child;
- c) Needs of a secular, democratic and socialistic society in a scientific age;
- d) Current educational problems;
- e) Educational policies;
- f) Educational system in his state and country;
- g) Modern educational trends;
- h) Rules and regulations governing conditions of service for teachers in the state.

III. *Abilities and Skills*

- A. To equip the teacher with the following abilities:
 - 1) To organise curricular content and co-curricular activities;
 - 2) To conduct simple action research;
 - 3) To manage class-room activities effectively;
 - 4) To exploit community resources to the maximum, for educational ends.
- B. To equip the teacher with the following skills:
 - 1) Effective communication with children and adults;
 - 2) Imparting communication skills to school children;
 - 3) Intelligent observation among student teachers and developing it in children;
 - 4) Manual and manipulation skills;
 - 5) Organizing work experience programmes for school children;
 - 6) Preparation, handling and proper use of teaching aids.

IV. *Attitudes*

To develop the following attitudes in the teacher:

- I. Sensitivity to professional problems;

2. Scientific approach towards educational problems;
3. Aesthetic appreciation;
4. Positive disposition towards the profession and professional ethics;
5. Positive disposition towards manual work.

C) Instructional Techniques

For the realisation of the objectives of the Primary Teacher Education courses, the teacher educators may follow the instructional techniques mentioned below, selecting the ones suitable to the course content suggested in the syllabus:

1. Lecture-cum-discussion;
2. Group discussions;
3. Panel discussions;
4. Seminars and symposia;
5. Seminar readings;
6. Debates;
7. Role playing and dramatisation;
8. Workshops;
9. Demonstrations and experimentation;
10. Problem solving method;
11. Assignments;
12. Guided library work and self-study;
13. Programmed instruction;
14. Lectures by guest speakers;
15. Excursions and study tours;
16. Use of audio-visual aids, like films, film-strips, sound tapes, radio, records etc.

D) Courses and the Scheme of Evaluation

The course is distributed over a period of two years. The courses for each year along with the evaluation scheme are given in the following pages.

First Year

S. No.	Name of the Course	Marks		
		Sessional work/ Internal	Theory & Practical/ External	Total
1	2	3	4	5
A. General Professional Courses				
1.	Principles and Problems of Primary Education	10	40	50
2.	Elementary Educational Psychology and Child Development	10	40	50
B. Content and Methodology Courses				
3.	First language (Mother tongue/ Regional Language)	10	40	50
4.	Second language (Hindi/English)	10	40	50
5.	Mathematics	10	40	50
6.	General Science	5	45 (Practicals 15)	50
7.	Social Studies	10	40	50
8.	Work Experience and Art Education	15	35 (Practicals 15)	50
C. Student Field Experiences				
9.	Seminar Course on Student Teaching	50	—	50
10.	Student Teaching	20	30	50
		150	350	500

Second Year

S. No.	Name of the Course	Marks		
		Sessional work/ Internal	Theory & Practical/ External	Total
1	2	3	4	5
A. General Professional Courses				
1.	School Organization and Administration	10	40	50
2.	Health Education and Community Education	10	40 (Practicals 20)	50
B. Content and Methodology Courses				
3.	First language (Mother Tongue/ Regional Language)	10	40	50
4.	Second language (Hindi/English)	10	40	50
5.	Mathematics	10	40	50
6.	General Science	5	45 (Practicals 15)	50
7.	Social Studies	10	40	50
8.	Work Experience and Art Education	15	35 (Practicals 15)	50
C. Student Field Experiences				
9.	Seminar Course on Student Teaching	50	—	50
10.	Student Teaching/ Internship	20	30	50
		150	350	500

First Year - 500

Second Year - 500

 Total 1000

Break-up of Seminar Course Assessment

Activity	Marks
1. Observation of Lessons	10
2. Preparation of Teaching Aids	10
3. Discreet Lessons	10
4. Participation in Seminar Discussions	10
5. Student Teacher's Diary	10
Total	50

At the end of every year there will be a departmental examination according to the scheme detailed above. For the practical examination at the end of the first year, candidates are required to select for their practicals in student teaching three lessons choosing one from each of the groups of subjects given below:

- Group 1. First language or Second language
- Group 2. Mathematics or General Science
- Group 3. Social Studies or Work Experience

In the second year they are required to select lessons from the remaining subjects not covered in the first year examination.

During the two year period of training the student teacher must attend at least 75% of the total number of working days. The Principal/Head of the institution can condone upto 5% shortage of attendance and the D.P.I. upto 10%.

The internal and external assessment will be shown in the result sheet and the certificate to be issued.

The candidates should obtain 40% of marks in sessional work, practicals and theory (external as well as internal) separately every year in each of the courses listed above.

Candidates securing 75% or above will be declared to have passed with distinction. Those securing 60% marks or above will be placed in the first division, those securing 50% but less than 60% will be placed in the second division and those securing below 50% but 40% and above will be placed in the third division.

Compartment

A candidate who fails in not more than three courses in theory but passes in all the other theory courses and various other sections of a particular examination will be placed in compartment in those courses provided the candidate has obtained 30% in the aggregate.

If a candidate fails only in the external examination in Science, Work Experience and Student Teaching practicals, he should appear again in the external examination of that section only. If the candidate fails in any section of the internal assessment only, he should make up his deficiency by attending the institution for a period of time prescribed by the Head of the institution.

E) Allocation of Time

The teacher education institution may work for six days in a week with eight periods a day, each period lasting for 40 minutes. The morning session and afternoon session will have four periods each, with 20 minutes mid-morning and mid-afternoon breaks and a lunch break of one hour.

Each of the general professional courses, content and methodology courses may be allotted 5 periods per week. Additional two periods each may be allotted for *practical work* for General Science, Work Experience and Health Education (including Physical Education Community life and recreational activities). Two continuous periods may be earmarked for the seminar on Student Teaching.

The five periods allotted to each of the content and Methodology courses may be distributed as two periods for content, two periods for Methodology and one period for any class-room activity warranted by sessional work (learning experiences).

It is advisable to provide two periods continuously in the timetable for all the courses to enable the teacher educator to experiment with modern techniques of teaching suggested in the syllabus. More adjustment of time will be possible as the Content and Methodology courses are expected to be taught by the same teacher educators in an integrated manner.

However, this distribution of time may be taken as purely tentative and the staff of the teacher education institution is required to make any minor adjustments to suit local conditions.

F) Adjustments Necessary for Two Year and One Year Courses

This programme of Primary Teacher Education has been developed to suit both the one year and the two year courses meant for secondary school graduates. In the case of adoption of this syllabus for the two year course, the respective State Departments of Education may add the content portion to the Content and Methodology Courses (First Language, Second Language, Mathematics, General Science, Social Studies and Work Experience) selecting the same from the Higher Secondary or P.U.C. syllabus.

In the case of one year course, the following adjustments in the curriculum may be made :

- (a) Regular teaching of the content courses may not be feasible. Enrichment of knowledge within the scope of Primary School Syllabus may be attempted through the techniques of supervised study in the development of resource units in connection with the student teaching programme, for meeting the deficiencies of the content knowledge of the student teachers.
- (b) Course IV, Health Education and Community Education may be deleted and items No. 1, 5 and 6 of the course content may be added to course III, School Organization and Administration.
- (c) The seminar course on student teaching may be conducted throughout the year and intership may be organized during the third term.

In the following pages, detailed syllabus in each course is given. It includes the objectives, course content and learning experiences. The learning experiences are closely related to the items under course content.

COURSE I

Principles and Problems of Primary Education

This course consists of principles, problems and modern trends in the field of Primary education. The problems of Primary education should be dealt in their historical perspective. The items in this course may be treated against the background of the philosophy and programme of Basic education. The course is divided into two sections as under :

- (A) Principles of Education
- (B) Problems of Primary Education

Objectives

1. To acquaint the student teacher with the meaning and functions of primary education in modern India.
2. To help the student teacher to understand the role of different agencies of education.
3. To enable him to understand the contributions of eminent educators and their impact on modern educational process.
4. To acquaint him with the current problems of and trends in Primary education.

(A) PRINCIPLES OF EDUCATION

Course Content

Learning Experiences

1. Meaning of Education and literacy and distinction between them. Assignments and Library work.

<i>Course Content</i>	<i>Learning Experiences</i>
2. Aims of Education. Education for :	
a) Individual Development	Supervised study and term papers.
b) Social Development	
c) National Development	
3. Agencies of Education :	
a) School b) Home	a) Visits to surrounding schools;
c) Community d) Mass media	b) Home visitations;
	c) Organization of radio listeners clubs;
	d) Bulletin boards;
	e) Manuscript magazines.
4. Contributions of great educationists :	
a) Froebel b) Montessori	a) Celebration of birth days of educators;
c) Dewey d) Vivekanand	b) Exhibitions on their lives and works;
e) Gandhi f) Tagore	c) Collection of quotations from their works;
	d) Book reviews;
	e) Visits to modern educational centres.
5. Principles of curriculum development at the elementary level in different school subjects.	Study of Primary School Curriculum.

(B) PROBLEMS OF PRIMARY EDUCATION

<i>Course Content</i>	<i>Learning Experiences</i>
-----------------------	-----------------------------

- | | |
|---|---------------------------------|
| 1. Trends in Primary Education | |
| a) A brief review of the progress of Primary Edu- | a) Chart work
b) Term papers |

COURSE II

Elementary Educational Psychology and Child Development

Objectives

1. To acquaint the student teacher with the knowledge of Psychology as a science of human behaviour.
2. To develop in him knowledge of children's developmental needs at different stages.
3. To acquaint him with the knowledge of the factors that influence the process of learning and to enable him to cater to the individual differences among school children.
4. To enable him to understand the need for proper motivation for better achievement.
5. To enable him to understand the need for love and security as pre-requisites for effective learning.
6. To bring home to him the importance of a healthy and well balanced mind and developed personality.

Course Content

Learning Experiences

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|--|--|
| <ol style="list-style-type: none">1. Meaning of Psychology;
Branches of Psychology;
Relationship between Psychology and Education. How Psychology helps the teacher in promoting effective learning. | <p>Visits to schools for observation of good teaching and discussion with tutor/psychology lecturer.</p> |
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*Course Content**Learning Experiences*

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| <p>2. Stages of development—Infancy, Childhood, Adolescence. Biological, Social and Psychological needs specific to different stages of development and their educational implications.</p> | <p>Study of behaviour of children of different age-groups in and out of school.</p> |
| <p>3. Meaning and role of nature and nurture and their relative importance to education.</p> | <p>An analysis of the natural and social environment of two or three school children with a view to understand their educational implications.</p> |
| <p>4. Basic needs of children—biological, social and emotional—their role in education, significance of love, recognition and security for effective learning. Some of the ill-effects on learning, if love, recognition and security are denied.</p> | <p>Study of parent-teacher-pupil relationship in the case of some problem children.</p> |
| <p>5. Learning—meaning; laws of learning; maxims of learning; factors influencing learning; learning by doing, learning by transfer, experiencing and living; memorization, Whole versus part learning; Nature of learning curve. Concept formation.</p> | <p>Identification of the laws and maxims of learning operated in the teaching—learning process in the teacher education institutes and cooperating schools.</p> |
| <p>6. Importance of motivation for effective achievement. Various types of motivation—Rewards and Punish-</p> | <p>Interaction analysis of teacher-pupil class-room behaviour against the background of motivation.</p> |

*Course Content**Learning Experiences*

- ments, their nature, significance and effect on learning and general development.
7. Nature of individual differences at various levels of learning—cognitive, conative and affective. Study of slow and fast learners—one of each type—Normal, Gifted and the Backward children.
 8. What is a group? Characteristics of stable and unstable groups. Observation of groups of children in different situations—class, play ground, group project, etc.
 9. Definition of intelligence—the concept of I.Q. Effect of environment on development of intelligence. Acquaintance with a few intelligence tests.
 10. Development of personality—interaction of individual needs and environmental factors; Maladjustment and behavioural problems; Development of interests and attitudes; Creativity and development of personality; Play and its importance. Acquaintance with simple personality tests and rating scales.
 11. Mental hygiene and mental health. Basic guidance concepts. Effect of mental health and attitudes of teachers on formation of children's attitudes and on learning situations. Teachers' attitude towards the profession and colleagues. Study of teacher behaviour in different situations.

COURSE III

School Organization and Administration

Objectives

1. To enable the student teacher to understand the principles of school organization and administration.
2. To equip him with the knowledge of various school activities and the role of the teacher in their organization.
3. To equip him with the knowledge of school projects, extension activities and school complex.
4. To acquaint him with the principles of time-table construction.
5. To enable him to understand the special problems of primary school and to be able to solve them at his level.
6. To enable him to understand the role of the state, district and local bodies in educational administration.
7. To enable him to understand the concepts of supervision and guidance.
8. To acquaint him with the service rules and code of conduct.
9. To enable him to understand simple procedures of maintaining school accounts, preparing salary, T.A., contingent bills etc.

Course Content

Learning Experiences

- | | |
|---|--|
| <ol style="list-style-type: none">1. Physical set up of the school—its maintenance, location, site. Building—ventilation, light-system, | <ol style="list-style-type: none">a) Visit to a sample of rural, urban and semi-urban schools for survey of their buildings. |
|---|--|

*Course Content**Learning Experiences*

floor and space, gymnasium, assembly hall, library-cum-reading room, laboratory museum, subject-rooms, garden, play ground etc. Needs of primary schools in relation to the available facilities. Improving and beautifying the campus. Maximum utilization of the building funds.

2. Co-curricular activities—importance, principles and procedures of organization and evaluation.

3. Staff—different categories of members, minimum qualifications, selection, qualities and duties, staff-meeting and cooperation among staff. Service conditions, service rules, code of conduct. Desirable staff-student ratio and feasible work load.

4. Head of the school—qualification, qualities, selection and duties.

5. Management, its function, organization.

- b) Preparing a model plan for the building of a primary school.

Opportunities to organize activities (Like festivals, games and sports, morning assembly, excursions. P.T.A. Staff council etc.), to be followed by evaluation of activities and discussion.

- a) Term paper based on study of staff pattern in large and small primary schools.
- b) Acquaintance with Education Code, Accounts, Salary and T.A. bills etc.

Interview with a headmaster of a primary school regarding his duties, responsibilities and problems.

Talks by various office bearers of the management.



*Course Content**Learning Experiences*

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| 6. School administration, its meaning and purposes. Set up of educational administration in the state, zila parishad and local bodies. | Library work followed by lectures and talks by officers of the department, zila parishad and local bodies. |
| 7. School discipline. | A paper on current disciplinary problems in primary schools. |
| 8. Library and reading room, school magazine, wall magazine. | Assignment of duties in the library and for running school and wall magazines. |
| 9. School records, attendance register, fee register, school cash book, admission records etc. | Maintenance of attendance, fee register etc. for a month or so in the cooperating school. Acquaintance with other school records. |
| 10. Time-table of primary school, principles of time-table construction, distribution of other school work. | Making a blue print of a workable time-table for a primary school. |
| 11. School furniture befitting a primary school. | Visits to different schools for study of furniture, working an estimate of furniture requirement in a primary school. |
| 12. Inservice education—Importance and facilities available. | Visit to Primary Extension Centres and discussion with the co-ordinator on its programme. |
| 13. Single teacher school, multiple class teaching; | Opportunity to prepare school improvement project followed |

*Course Content**Learning Experiences*

- School improvement projects; Concept of school complex; Extension Programmes; Role of primary school teachers.
14. Supervision and guidance— Principles and procedures of Supervision. Interview with a supervisor by the class as a whole on the role of a supervisor in school improvement.
15. Institutional Planning.
- a) Library study.
 - b) Development of an annual plan for a primary school for the optimum utilization of the physical and personnel resources.

COURSE IV

Health Education and Community Education

Objectives

1. To equip the student teacher with the knowledge of facts and principles upon which the promotion of good health depends.
2. To enable him to know the methods of maintaining cleanliness and of preventing and curing diseases.
3. To develop in him an understanding of the importance of physical health as part of one's professional equipment.
4. To develop in him the attitudes and habits which will promote and maintain a clean and healthy life.
5. To enable him to apply the principles of health and hygiene in the school.
6. To enable him to gain knowledge of rules of games and sports.
7. To enable him to gain practical experience of community life and to develop in him the skills to utilize the community resources for the improvement of school.
8. To enable him to appreciate democratic way of life.

Course Content

Learning Experiences

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| 1. School hygiene—meaning and scope; principles of cleanliness and sanitation; Adequate arrangement of utilities—drinking water. | a) Preparation of a plan for the celebration of health week in the school involving the community. |
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Course Content

Learning Experiences

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| <p>urinals, latrines; sanitation of class-rooms and school campus—ways and means of getting cooperation of children; physio-medical checkup and maintenance of health records of children and the follow-up.</p> | <p>b) Development of a medical report card.</p> <p>c) Follow-up of medical reports.</p> |
| <p>2. Personal hygiene—meaning and scope; Human Body—digestive, circulatory, respiratory, excretory and nervous systems. Important organs—their functions care and cleanliness, good health habits—rest, exercise, correct breathing and correct postures.</p> | <p>Study of school children—listing of their unhealthy habits and taking remedial measures, during school visits and student teaching.</p> |
| <p>3. Social hygiene—nature and causes of some common infectious diseases. Prevention of diseases. First Aid.</p> | <p>Survey of the facilities available in the area for prevention of infectious diseases.</p> |
| <p>4. Nutrition—Food and health; constituents of good food; balanced diet; protection of food and water from contamination.</p> | <p>Preparations of balanced diet sheets taking seasonal crops, fruits and vegetables into consideration.</p> |
| <p>5. Physical education—Principles of physical education; selection of physical activities to suit age, sex and interests; Types of physical and recreational activities, their educational value;</p> | <p>Practice in organising different sports and games and other physical exercises in schools.</p> |



*Course Content**Learning Experiences*

Place of drill and other physical exercises in school curriculum; Games and sports—their rules.

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| 6. Community living—Relationship of school and the community; Utilization of community resources for the school; Participation of school in community programmes. Shramadan and social service camps—rural hygiene and sanitation programmes. | a) Organisation of Community sanitation programmes.

b) Planning, organisation, and evaluation of social, cultural and recreational activities. |
| 7. Population education and its implications to teachers role as educator. | Survey of teachers' families in the locality (about half a dozen each) and their problems. |

COURSE V

Content and Methodology of Teaching First Language

PART A—CONTENT COURSE (in the case of two year programme)

PART B—METHODS OF TEACHING

Objectives

1. To acquaint the student teachers with the existing language syllabi and to expand and enrich his knowledge regarding the content and methods included in them.
2. To deepen his knowledge regarding teaching of writing included in the language syllabus.
3. To develop his ability to use oral and written language effectively and improve his communication skills.
4. To familiarize him with the modern methods and techniques for developing the four language skills of children.
5. To enable him in the preparation and effective use of aids for language teaching.
6. To enable him to evaluate the outcomes of language teaching at every stage.

*Course Content**Learning Experiences*

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|---|---|
| 1. Study of the Primary School syllabus. | Review of the text-books in the light of the syllabus prescribed. |
| 2. Study of children's literature in relation to prescribed syllabus. | Survey of children's literature in regional languages. |
| 3. Functional Grammar. | Organizing Grammar teaching in a functional manner. |
| 4. Importance and objectives of Teaching Mother Tongue. | |
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| a) Early training in listening and oral expression through methods such as story telling, imitation, repetition, use of questions, participation in conversation and dramatization. | Participation in practical activities—listening to radio, records (tape and phono) and such other instructional aids. |
| b) Teaching reading to beginners. | |
| i) Reading readiness programme. | a) Use of different methods in classroom situations.
b) Training in improvement of pronunciation. |
| ii) Different methods of teaching reading—phonetic method, look and say method, sentence method, story method, composite method. | |
| iii) Reading with understanding—loud and silent reading, understanding | a) Practice reaching;
b) Observation of demonstration lessons. |

*Course Content**Learning Experiences*

characteristics of effective reading, use of remedial measures for removal of common defects and development of free habits. Reading for pleasure.

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| <p>c) Teaching writing to the beginners:</p> <ul style="list-style-type: none"> i) Writing readiness ii) Types of written exercises iii) Common defects iv) Transcription v) Practice in writing vi) Dictation vii) Composition (Oral and Written) viii) Correction of written work ix) Methods of teaching spelling — Development of spelling confidence, Punctuation, Grammar, etc. x) Development of vocabulary. | <p>Practice teaching in all aspects of writing programme.</p> |
| <p>5. The use of language text-books.</p> | <p>a) Practice Teaching in all aspects mentioned.</p> |
| <p>6. Teaching of prose and poetry; Recitation, steps in the teaching of poetry, creating interest in poetry; Appreciation of poetry.</p> | <p>b) Evaluation of language text-books.</p> |
| <p>7. Use of the technique of correlating language exer-</p> | <p>Practice of the techniques in class-room situation.</p> |

*Course Content**Learning Experiences*

cises with activities such as prayer, community songs, observance of festivals, citizenship activities, dramatization, exhibitions, excursions, projects, crafts etc.

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| 8. Unit Plans and Lesson Plans | Preparing different plans of language lessons during teaching practice. |
| 9. Preparing, improving and using effectively aids and devices for language teaching. | a) Preparation of common aids and using them in actual teaching situations,
b) Preparation of vocabulary charts. |
| 10. Techniques of evaluation of linguistic abilities of children at every stage. | Preparation of evaluative tools and questions for different grades. |
| 11. Reading for pleasure. | Guided study and library work. |

COURSE VI

Content and Methodology of Teaching Second Language (Hindi)

PART A—CONTENT COURSE (in the case of two year programme)

PART B—METHODS OF TEACHING

Objectives

1. To enable the student teacher to provide to the school children means for inter-state communication in India for the promotion of socio-cultural exchange resulting in emotional and national integration.
2. To provide basic knowledge and practice in the use of sentence patterns which are the basis of working knowledge of Hindi.
3. To enable the students to use the language effectively and accurately.

Course Content

Learning Experiences

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| 1. Aims and importance of teaching Hindi. | Term paper on the importance of a link language and the relative merits of Hindi and English. |
| 2. Oral work—its importance, aims and means, aspects of good oral expression and conversation. | Practice in conducting dramatization, simple conversation etc. |
| 3. Pronunciation—its importance, errors in pronun- | a) Use of linguaphone and tape records. |

*Course Content**Learning Experiences*

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| <p>ciation, their causes and remedies.</p> | <p>b) Demonstration classes.
c) Use of learning situations for free expression.</p> |
| <p>4. Means of learning Hindi—textbooks, library, periodicals, debates, dramatics, symposia.</p> | <p>Practice in using the media effectively.</p> |
| <p>5. Teaching of reading—aims, means and methods of teaching reading to the beginners, reading readiness, vocabulary and its development, steps in the teaching of prose; Backwardness in reading. Reading for pleasure.</p> | <p>a) Practice teaching in methods—sentence method, look and say method and phonetic method.
b) Development of classified bibliography of juvenile literature.
c) Preparation of at least one booklet a year on topics of interest for children.</p> |
| <p>6. Teaching of writing—aims of teaching writing at various stages; writing for the beginners, calligraphy, transcription, dictation, correction of written work; means of ensuring good hand writing; backwardness in writing; writing of short passages, stories and letters.</p> | <p>Analysis of spelling and handwriting errors of primary school children.</p> |
| <p>7. Lesson planning.</p> | <p>a) Practical experience in lesson planning.
b) Preparation of charts and models related to lesson units.</p> |
| <p>8. Teaching of poetry—aims,</p> | <p>a) Practice in emotional reading</p> |

*Course Content**Learning Experiences*

- different types suitable for different grades; recitation; Steps in teaching poetry; Various methods of teaching poetry; Means of creating interest in poetry.
- and recitation of poems.
- b) Collection of nursery rhymes, patriotic poems, devotional songs suitable for children.
9. Spelling—types and causes of spelling mistakes; Means of eradicating spelling mistakes. Study of common errors made by school children in their composition work.
10. Grammar—inductive and deductive methods of teaching grammar; Utility of functional grammar. a) Comparative study of grammatical forms in Hindi and another modern Indian language/English.
b) Use of textbooks as a base for teaching grammar.
11. Evaluation—latest concepts, tools, comprehensive schemes of evaluation in language teaching, new type tests. a) A comparative study of different question papers.
b) Preparation of battery of questions for each grade and for each type of linguistic skill.



COURSE VI (A)

Content and Methodology of Teaching Second Language (English)

PART A—CONTENT COURSE (in the case of two year programme)

PART B—METHODS OF TEACHING SECOND LANGUAGE

Objectives

1. To provide to the students a means for inter-state communication in India for the promotion of socio-cultural exchange resulting in emotional and national integration.
2. To provide basic knowledge and practice in the use of structures and sentence patterns which are the basis of working knowledge of English.
3. To enable the students and others to use the language effectively and accurately.

Course Content

Learning Experiences

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| 1. Pronunciation—
Formation of right habits of speech and skills in language learning. Practice in different methods of teaching English. | a) Use of lingua-phone and tape-records.
b) Attending demonstration classes.
c) Use of learning situations for free expression.
d) Use of structures selected with reference to frequency, ease and clarity. |
| 2. Imitation and repetition; Practice Teaching. | |

*Course Content**Learning Experiences*

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| Use of questions and simple commands. | |
| 3. Use of structures of common frequency in situations appropriate to their meanings. | Participation in practical activities involving the use of structure such as debates and discussion groups. |
| 4. Mastery of language structures. | Use of exercises in different structures. |
| 5. Use of different texts. | Library Reading |
| 6. Forms of home work. | Prescription of home assignments. |
| 7. Group work and co-operation in language learning and use of play-way methods. | Language games and word games. |
| 8. Teaching reading to beginners—Sentence Method; Look and Say Method; Phonetic Method. | Practice teaching. |
| 9. Teaching of writing to beginners. | Use of flash-cards and chalk board. |
| 10. Loud and silent reading—Merits and de-merits. | Development and use of reading sheets for children. |
| 11. Intensive and extensive reading. | Library work. |
| 12. Special techniques—sub-situation tables, chorous, drill, action songs, etc. | Practice teaching. |

*Course Content**Learning Experiences*

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| <p>13. Types of written exercises:</p> <ul style="list-style-type: none"> i. Transcription ii. Picture composition iii. Story re-production iv. Simple letters. | <p>Use of black board, questions and pictures.</p> |
| <p>14. Controlled composition, filling in blanks, mastering and completing exercises, use of suitable questions.</p> | <p>Use of structures and day-to-day experiences of children.</p> |
| <p>15. Dictation</p> | <p>Use of words and sentences already taught.</p> |
| <p>16. Correction—its importance in the prevention of wrong habits of language, use of symbols.</p> | <p>Practice in the correction of exercises.</p> |
| <p>17. Spelling-teaching through the use of sense and recall technique.</p> | <p>Use of flash cards, flannel board, black board.</p> |
| <p>18. Punctuation marks limited to :</p> <ul style="list-style-type: none"> i. Coma ii. Fullstop iii. Question mark iv. Quotation mark. | <p>Examination of model prose pieces.</p> |
| <p>19. Teaching of Grammar—Functional Grammar, inductive approach. Incidental teaching.</p> | <p>Use of textbooks as a base for teaching of grammar.</p> |
| <p>20. Teaching of poetry—limited to the teaching of nursery rhymes only upto standard five—emphasis on</p> | <p>Practice in emotional rendering and recitation of poems.</p> |

*Course Content**Learning Experiences*

rhythm and enjoyment; meaning is given through gestures, use of pictures etc. Simple poems may be taught in Standards VI to VIII.

21. Testing and Evaluation—Differences between teaching and testing exercises—oral and written tests, emphasis on testing language and not memory of details of lessons—different types of questions—need for devising suitable questions for language testing.

A comparative study of different types of question papers—Preparation of battery of questions for each grade and for each type of linguistic skill.

COURSE VII

Content and Methodology of Teaching Mathematics

PART A—CONTENT COURSE (in the case of two year programme)

PART B—METHODS OF TEACHING MATHEMATICS

Objectives

1. To enable the student teacher to have a thorough knowledge of facts, principles, concepts, generalisations, etc., as contemplated in the syllabus.
2. To develop in him the skill to apply the various techniques and devices for effective teaching of different topics in Mathematics.
3. To develop in him the skill of correlating the topics with different topics in the subject, between different branches of Mathematics and with other subjects.
4. To enable him to prepare lesson plans and aids relevant to the units.
5. To enable him to evaluate the outcome of teaching and learning:
 - (a) finding out the achievement of the child,
 - (b) Discovering the strengths and weaknesses of the child and adopting suitable remedial measures.

6. To enable him to select and prescribe suitable textbooks in Mathematics.
7. To enable him to develop interest in Mathematics.

Course Content

Learning Experiences

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| <ol style="list-style-type: none"> 1. Development of Mathematics through ages—contribution of Indians to different branches of Mathematics. Use of Mathematics in different social phenomena. | <ol style="list-style-type: none"> a) Seminar readings. b) Celebrations of the birth days of great Indian Mathematicians like Aryabhata, Bhaskaracharya, Brahmagupta, etc. |
| <ol style="list-style-type: none"> 2. Principle of developing a Mathematics Curriculum. | <p>Organisation of discussion on the curricular changes that have taken place during the past decade.</p> |
| <ol style="list-style-type: none"> 3. Study of the existing Primary School Mathematics syllabus. | <ol style="list-style-type: none"> a) Writing term papers based on the survey of Mathematics projects in India and abroad. |
| <ol style="list-style-type: none"> 4. The revolution in school Mathematics and factors contributing to the same. | <ol style="list-style-type: none"> b) Study of the Mathematics Curriculum developed by NCERT. c) Extension lectures—contribution of Piaget, Bruner and others towards the learning of Mathematics at primary stage. d) Screening of films on the work of Piaget, followed by discussions. e) Book reviews. |

*Course Content**Learning Experiences*

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| <p>5. (a) Objectives of teaching Mathematics.</p> <p>(b) Specific objectives of teaching elementary Arithmetic and elementary Geometry.</p> | <p>Developing specifications for a few selected objectives of teaching Mathematics in Primary Schools.</p> |
| <p>6. Teaching learning process—methods of teaching—Heuristic, Inductive and Deductive; Analytical and synthetic; Laboratory; Project; Group techniques; Supervised study.</p> | <p>Observation of model lessons given by teacher educators and senior teachers, followed by discussions.</p> |
| <p>7. Mental Arithmetic.</p> | <p>Application of the methods to the topics in the Primary School Curriculum.</p> |
| <p>8. Planning instruction—lesson plans, monthly and yearly plans.</p> | <p>a) Preparation of lesson plans.
b) Monthly and yearly plans on the basis of the primary syllabus in the state.</p> |
| <p>9. Concept of Evaluation, tools of evaluation—validity, reliability and objectivity—Diagnostic testing and remedial teaching.</p> | <p>Construction, administration and interpretation of scores of unit tests and suggesting remedial measures.</p> |
| <p>10. Development of instructional materials—textbooks, handbooks, models and charts.</p> | <p>Practical training in the preparation of teaching aids using locally available cheap materials.</p> |
| <p>11. Organising activities for the promotion of Mathematical interest—Mathematics club, Exhibition.</p> | <p>Organisation of a Mathematics club and exhibition in the teacher education institution.</p> |

COURSE VIII

Content and Methodology of Teaching General Science

Part A—CONTENT COURSE (in the case of two years Programme)

Part B—METHODS OF TEACHING GENERAL SCIENCE

Objectives :

1. To enable the student teacher know and understand about:
 - (i) The role of science and its impact on modern living,
 - (ii) the importance and place of General Science in the curriculum of Primary Education,
 - (iii) the objectives of teaching General Science at the primary school stage,
 - (iv) the approaches to General Science curriculum at the primary stage,
 - (v) the methods of teaching General Science, and
 - (vi) evaluation in General Science.
2. To have a sufficient knowledge of the facts, principles and concepts in the biological, physical and earth related sciences.
3. To develop necessary skills and techniques essential for teaching of General Science.
4. To know and understand the ways and means for developing scientific attitude.

Part—A *Content Course*

Knowledge of facts, concepts, principles and generalisation in the physical, biological, and earth related science pertaining to the General Science Syllabus at the Primary Stage of Schools.

Part—B *Methodology of Teaching General Science**Content Course**Learnings Experience*

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| <p>1. Role of Science and its impact on modern living.</p> <p>(a) Science and agroindustrial society.</p> <p>(b) Science, health and hygiene.</p> <p>(c) Science and exploration.</p> | <p>1. Library reading</p> <p>Visit to industries and Health Centres</p> <p>Hospitals.</p> <p>Science laboratories.</p> |
| <p>2. Importance and place of Science in the Curriculum of Primary Education.</p> <p>(a) Scientific way of thinking, Scientific way of doing things. (Scientific method)</p> <p>(b) Scientific attitude and outlook.</p> | <p>Library reading</p> |
| <p>3. Objectives of teaching Science:</p> <p>(a) for lower primary stage</p> <p>(b) for upper primary stage</p> | <p>Working out specifications for a few selected objectives.</p> |
| <p>4. Approaches for constructing a science curriculum</p> <p>(a) life centred approach</p> <p>(b) discipline centred approach.</p> | <p>Supervised Study.</p> |

5. *Science Curriculum and Text-books*

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| (a) Place of Science in the curriculum of primary education. | (a) Study of Structure of Science Education in the State. |
| (b) General Science Curriculum at the Primary level. | (b) A critical study of the prescribed syllabus; text-books and the curriculum as a whole. |
| (c) Instructional materials in Science. | |

6. *Methods of Teaching Science*

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| (a) Problem solving method. | (a) Observation of lessons. |
| (b) Analytical and Synthetic method. | (b) Practice teaching. |
| (c) Demonstration method. | (c) Library study. |
| (d) Heuristic method. | |
| (e) Project and unit method. | |
| (f) Discussion & Symposium. | |

7. *Skills and Techniques for Teaching Science*

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| (a) Skill in observation | Practical Work in Lab.
Skills & improvisation. |
| (b) Skill in experimentation | |
| (c) Skill in performing demonstrations | |
| (d) laboratory skills and techniques | |
| (e) skills of improvisation | |

- (f) Problem solving skills.
- (g) techniques of collection and preservations of specimens.
- (h) organizing science projects.
- (i) Skills in the use of audio-visual aids.

8. Importance and use of teaching aids in the teaching of General Science

Library study.

Teaching Aids :

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|--|---|
| (a) Textbooks | (a) Practice of teaching |
| (b) Teachers Guide and instructional materials | (b) Observation of lessons |
| (c) Models and charts | (c) Development and display of teaching aids and science kits for primary school. |
| (d) Science kits and apparatus | (d) Screening of filmstrips and films. |
| (e) Objects and specimens | |

9. *Activities for Promoting Science teaching*

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| (a) Science Museum (collection) (its organisation) | (a) Collection and display. |
| (b) Science clubs and fairs | (b) Five activities in Science to be arranged for display. |
| (c) Science Projects. | |

10. *Evaluation*

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| (a) New approaches of evaluation | (a) Library reading. |
| (b) Tools of evaluation | (b) Construction of objective type tests. |
| (c) Practical work. | |

COURSE IX

Content and Methodology of Teaching Social Studies

PART A. CONTENT COURSE (in the case of two year programme)

PART B. METHODS OF TEACHING SOCIAL STUDIES

Objectives

1. To develop in the student teacher a broad human interest in the progress of mankind in general and of India in particular with the resultant awakening of interest in the developmental aspects of our national effort.
2. To enable them to understand the factors of history and culture of India resulting in the objective appreciation of present living conditions.
3. To create in him a sense of national unity in the midst of apparent diversity and to awaken in them the need for emotional integration, brotherhood and fellow feeling.
4. To enable them to prepare teachers to undertake the practical responsibilities of an ordered and progressive society and to exercise ones rights in a manner socially purposeful and beneficial.
5. To create in them a sense of confidence and readiness to take up leadership responsibilities.
6. To develop in the student teacher necessary knowledge and skills to prepare resource units in Social Studies and organise instruction in Primary schools,

*Course Content**Learning Experiences*

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| <p>1. Meaning, nature and scope of Social Studies. The field of Social Studies and inter-relatedness of Social Sciences.</p> | <p>a) Assignments;
b) Library work.</p> |
| <p>2. Objectives of teaching Social Studies.</p> | <p>Workshop on the listing of national objectives and their conversion to educational objectives at primary level.</p> |
| <p>3. Principles and procedures of systematisation of social studies subject matter—Chronological, topical, concentric, spiral and core curriculum. Correlation, Integration and Fusion in the development of Social Studies resource units.</p> | <p>a) Study of the Primary school Social Studies syllabus.
b) Preparation of syllabus items according to different curricular patterns.</p> |
| <p>4. Different methods of teaching Social Studies in Primary school classes—Narration, Biography, Story, Play way, Dramatisation, Correlation; Textbook, Discussion, Problem solving, Project, Unit procedure and Social recitation. Utilisation of community resources; School visits; Group work.</p> | <p>a) Development of resource units in connection with the study of Social Studies content and preparation of teaching units following the different methods in connection with the student teaching;
b) Development of community resources information cards;
c) Observation of lessons taught by senior teachers following different techniques.</p> |
| <p>5. Nature and scope of different teaching aids for</p> | <p>a) Practical experience in the preparation of different kinds</p> |

*Course Content**Learning Experiences*

- Social Studies; Principles and techniques that govern their preparation and use— Maps, Charts, Relief Models, Time Lines, Globe, Pictures, Diagrams. The principles and procedures of organising museums, exhibitions, excursions; Social Studies room and library. Radio lessons.
6. Teaching of current events to keep abreast with life around us.
7. Evaluation in Social Studies with reference to the objectives. Types of tests in social studies for measurement of achievement of Primary School Children.
8. Identification of deficiencies in social learning by children and offering remedial measures.
- of teaching aids;
- b) Experience of organising museums, exhibitions, field trips, Social Studies Club;
- c) Library work;
- d) Utilization of radio lessons.
- a) Organisation of radio listening groups, bulletin boards, manuscript magazines, Wall news papers, News clippings album, Picture albums.
- b) Celebration of national days and birth days of national leaders.
- Practical experience in the construction of objective tests and their administration, scoring and offering remedial measures for overcoming the deficiencies in school children.

COURSE X

Content and Methodology of Work-Experience

Introduction

According to the emphasis, work can be either mental or manual. The latter performed intelligently involves a fair proportion of mental activity as well. Manual work is activity in which there is purposeful expenditure of physical human energy and application of force. It brings about a condition of controlled motion accomplishing manipulation of tools resulting into production. Production includes the creation of goods and provision of services.

Experience is the accumulated knowledge and skills absorbed through senses, based on personal observations, impressions or contacts. It is acquired in actual living through certain facts, events, activities, work, calling, conditions, circumstances and emotions. The experiencer undergoes enjoyment or suffering for some duration, as contrasted with theory and imagination. It affects ones judgment resulting in fairly sustained modification of the behaviour and consequent growth in learning, wisdom and personality.

Work-experience is, therefore, the knowledge skills and attitudes developed in an individual through educational manual work. It should be purposeful and result in the production, maintenance, and distribution of something specific relating to the five basic needs of life namely health, food, shelter, clothing and recreation. It should also be forwardlooking and as far as possible be provided under real production situation.

Acquisition of the necessary related knowledge is important for intelligently performing the work. This must be emphasised in the programme intended to provide experiential learning.

The course is divided into two parts: (A) Content, and (B) Methodology. The content course introduced in the teacher education institution should closely correspond to the programme of work experience introduced in the primary schools of the state concerned. It should also consist of related advanced knowledge and skills in the same area as included in the higher secondary course of the same state. The concept of work-experience is still in the developing stage. So, the training institutions are advised to develop for themselves their own content courses selecting suitable activities from each of the five areas of work-experience suggested ahead, according to the felt needs of the area they serve and the facilities available.

Experiences selected should be of interest to the student-teachers as well, and should suit their capacity. Though the nature of the experiences for children and student teachers will be similar, those performed by the latter may require more skill and stamina than those meant for the school children. The training institutions are advised to state the specific objectives of the activities from the learner's point of view. Then the course content may be broken up into suitable work units, along with the related knowledge, skills and attitudes that go with them. The related knowledge will include the need of the activity, sources and properties of raw materials used, the parts, proper use and maintenance of tools, the implication of operations and the method of evaluation of the processes and the products. These may be listed in the left hand column under 'course content' and the corresponding learning experiences may be indicated in the right hand column. The learning experiences consist of teaching situations and activities involving the processing of the raw material, maintenance of products and their distribution for gaining the knowledge, skills and attitudes mentioned under the course content. The processing of the raw materials will include actual manipulation of these with the help of tools resulting into the product which will help in solving the problem related to the life needs i.e. health, food, shelter, clothing and recreation. Similarly maintenance experiences will involve manipulation of tools for the upkeep of the articles of daily use. Distribution work may also involve tool manipulation and manual dexterity.

Part A. CONTENT COURSE OF WORK-EXPERIENCE

Objectives

- i) To enable the teacher trainees to get acquainted with the curriculum of the school stage where they are supposed to teach.
- ii) To gain the necessary skills for demonstrating and supervising the programme of work experience.
- iii) To develop the correct attitude towards manual work and the manual workers.
- iv) To develop interest in work involving the use of hands.

Contents

Work-Experiences related to health may include:

- i) Production of the equipments related to cleanliness and other health activities.
- ii) Cleaning of the body, the clothes and the surroundings.
- iii) Organisation of health campaigns.

Work-Experiences related to food may include:

- i) Growing of :

a) Cereals,	g) Pulses,
b) Millets,	h) Fruits,
c) Vegetables,	i) Poultry Farming.
d) Food Crops,	
e) Cash Crops,	
f) Oilseeds,	
- ii) Bee-keeping.
- iii) Dairying and Pisciculture.
- iv) Processing and storing of raw-materials for food:

a) Packing of food.	d) Preparation of fruit products like jam, jelly, pickles, etc.
b) Dehydration of vegetables.	
c) Canning of fruits and vegetables.	e) Preservation of juices.
- v) Cooking:

a) dishes for ordinary and special occasions,	b) confectionery,
c) bakery.	
- vi) Catering of food.

Work-Experience related to shelter may include:

- i) Beautifying the school building with plants, flower, gardening, pictures and paintings etc.
- ii) Arrangement of the furniture and fittings etc.
- iii) Construction of furniture and fittings and other household gadgets. Maintaining and effecting simple repairing in the building, household-furniture, equipments and gadgets used in the home.

In terms of crafts it may include Paper-work; Card board work; Cane and bamboo work; Wood work; Metal work including Sheet-metal work, Blacksmithy, Fitting, Turning, Moulding, etc.; Plastic work; Electrical wiring; Plumbing; Radio engineering; Light engineering; Civil, mechanical and electrical engineering; Ceramics; Electronics; Interior decoration.

Work-Experience related to Clothing may include:

- i) Production, collection and storing of raw materials used for clothing like cotton, silk, wool, jute, etc.
- ii) Preparation of yarn from different kinds of fibres.
- iii) Preparation of cloth from different materials.
- iv) Dying and printing of cloth.
- v) Dress making and repairing of garments.
- vi) Knitting and hosiery work.
- vii) Sewing and embroidery work.
- viii) Laundry work.

Work-Experience related to Recreation may include :

- i) Giving the necessary setting for holding recreational and cultural activities.
- ii) Setting up of the stage etc. for dramatics.
- iii) Holding of exhibitions.
- iv) Toy making.
- v) Book making.
- vi) Leather work.
- vii) Making of scientific instruments.
- viii) Maintenance of means of transport.

Part B. METHODOLOGY COURSE OF WORK-EXPERIENCE**Objectives**

- I. To enable the student-teacher to know:
 - a) the concept of work-experience;
 - b) the physiological, psychological, sociological and economic basis of the programme of work-experience;
 - c) the history of the introduction of manual work in education;
 - d) place of work-experience in the school curriculum and its educational implications;
 - e) the work-experience curriculum;
 - f) the natural reaction of the child towards manual work at different stages;
 - g) principles of developing a work-experience curriculum;
 - h) the method of providing work-experiences and use of teaching aids;
 - i) process of evaluating the programme of work-experience.
- II. To enable the student-teachers to acquire skill in :
 - a) problem solving;
 - b) developing the programme of work-experience and planning the schedule of work;
 - c) drawing up the list of requirements and selecting proper raw materials and tools;
 - d) motivating the children for the experience;
 - e) providing the necessary related knowledge for performing work intelligently;
 - f) demonstrating the use of tools and manipulation of materials;
 - g) evaluating the work of the children and feeding back;
 - h) improvising of teaching aids.
- III. To enable the pupil teacher to develop the following attitudes:
 - a) locating ones own problem and solving it himself;
 - b) love for manual work and respect for manual workers;
 - c) methodical way of doing work;
 - d) insisting on perfection;
 - e) keenness in improving the method of production.

Contents

Course Content

Learning Experiences

- | | |
|---|--|
| 1. The concept of work-experience. | Group discussion. |
| 2. The physiological, psychological, sociological, and economic bases of the programme of work-experiences. | Term papers. |
| 3. Introduction of manual work in education in India, socialist countries and other western countries. | Book reviews. |
| 4. Objectives of including work-experience in the school curriculum with special reference to particular experiences. | Collection from the different sources. |
| 5. Place of work-experience in the school curriculum with special reference to particular experience. | Study of the school syllabus. |
| 6. Curricular implication of the programme of work-experience. | Discussion and development of a curriculum in work-experience for primary school. |
| 7. Implementing the programme of work-experience. | Development of a plan of implementation with special reference to the area of work taken up. |
| 8. The problems related to the five basic needs of life—Health and Hygiene, Food, Shelter, Clothing and Cultural and Recreational activities. | Development of instructional material for use in the primary schools. |

*Course Content**Learning Experiences*

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|--|---|
| 9. Knowing the children's aptitudes and interests in relation to different types of work-experience. | Observation of children, followed by group discussions.
Recording of observations. |
| 10. The method of organising work-experience with special reference to particular experiences. | a) Discussions on the various steps in the organisation of work-experience. |
| a) Motivation | b) Demonstrations of the methods of imparting work-experience and practice of the same in student teaching. |
| b) Identification of the problem. | |
| c) Arriving at hypothetical solution. | |
| d) Executing the solution. | |
| e) Demonstration and use of teaching aids. | |
| f) Supervision | |
| g) Evaluation | |
| h) Feed back | |
| 11. Preparation of teaching aids related to work-experience. | At least three two-dimensional teaching aids to be prepared during the course. |
| 12. Experience in providing work-experience to the school children. | Organisation of work-experience programmes covering at least ten lessons during one year's course. |
| 13. Evaluating children's work with special reference to particular experiences. | a) Maintenance of records of work-experience performed by children during teaching practice. |
| | b) Assessment of children's progress in work-experience based on records. |

COURSE XI

Content and Methodology of Art Education

Part A: CONTENT COURSE OF ART EDUCATION

Objectives

To develop necessary understanding and skill for conducting art experiences.

Contents

Course Content

1. Drawing and Painting

Learning Experiences

Drawing with different materials like charcoal, crayon, pencil, chalk on different surfaces dry and moist. Different subjects may be attempted like expression of ideas gained from the experiment or reading. Painting with the help of dry colours and wet paints on different kinds of surfaces. The subjects should have variety.

2. Printing and Designing

Different techniques of printing and designing may be tried such as ink-blot work, string work, stamping, printing, rubbing, crayon resist.

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|--|--|
| 3. Collage, Applique and Embroidery | Collage may be built with paper and other odds. Applique work and embroidery may be carried on cloth. |
| 4. Clay work, Sculpture and Construction | Experiences will include change, carving, pottery and construction with different materials including cost away articles. |
| 5. Art Appreciation | This may be carried out on, either in the form of oral appreciation or written appreciation. Decoration of the surroundings, display of art work and visits to places of art interest will also help in developing art appreciation. |

Part B: METHODOLOGY COURSE OF ART EDUCATION

Objectives

- i. To enable the student teacher to know :
 - a) The latest concept of art and child art;
 - b) The elements of art and creative process;
 - c) The reaction of the child to art stimulus at different stages;
 - d) The art curriculum;
 - e) The method of motivation, supervision and evaluation of art work;
 - f) The art heritage of India and other countries.
- ii. To enable the student-teacher to develop abilities in :
 - a) Manipulating art materials;
 - b) Expressing himself through the art medium with the help of different techniques;

- c) Providing art experience to the children and evaluating their work;
- d) Organizing art exhibitions;
- e) Organizing field trips etc. for art education.

iii. To enable the student-teacher to develop the following attitudes:

- a) Positive attitude towards art education;
- b) Appreciation for natural and man-made art;
- c) Work for beauty and art.

Contents

<i>Course Content</i>	<i>Learning Experiences</i>
1. The changing concept of art. Place of art in primary education.	Discussions.
2. The art elements and the creative process.	Guided Study.
3. Child art and the stages in creative growth.	Study and observation.
4. The art curriculum. The materials used and the techniques followed in art.	A critical study.
5. The method of planning the art lessons, motivating, supervising and evaluating the work of the children.	Development of lesson plans.
6. Providing art experiences to the children.	Teaching at least 10 lessons in art education.
7. Organizing exhibitions and field-trips etc.	At least two exhibitions and two field trips to be organized.

COURSE XII

Seminar Course in Student Teaching

The seminar course on student teaching consisting of the general principles and methods of teaching has been recommended to be organized from the beginning of the first term of the first year till the end of the second term of the second year during which period the student teaching programme is expected to be organised. This course may be organised in a block of two hours in a week, even during the time the student teachers are interned in the co-operating schools. This course is expected to be covered through seminar discussions under the guidance of the methodology teacher educators throughout the two year period of training. The topics mentioned in the course outline need not be taken up for discussion in the given order, but can be taught according to the situational needs of the student teachers, as this course is expected to provide the general theoretical background for the student teachers to practice Education successfully. The discussions in the seminar of the various items of the syllabus should be closely related to the actual problems identified by the student teachers during their school visitations, observations, teaching of discreet lessons, development of lesson plans and teaching aids and intensive teaching practice during internship. Student-teachers themselves analyse the problems and suggest solutions during their discussions under the guidance of the methods masters in charge of the seminar.

This course is to be completely integrated with student teaching activity in its broad sense of the term and is assessed internally every year. There is no need for an external examination for this course as similar knowledge will be tested in the respective subject methodology courses.

Objectives

As a result of his participation in this course the student teacher should:

1. Acquire knowledge of the course content at the primary level, different methods of teaching, techniques of evaluation, techniques of preparation of instructional materials, modern trends in class room instruction such as team teaching, programmed learning, role playing, etc. as detailed in the course content.

(Specifications: He will be able to recall and recognise various items of knowledge.)

2. Develop understanding of different items mentioned under objective 1.

(Specifications: He will be able to explain the various items with his own illustrations, supplement what is left out in discussion, correct factual errors, discriminate between different items and find interrelationships between items.)

3. Develop the ability to apply his knowledge and understandings to various items in real situations.

(Specifications: He will first analyse the given situation and suggest what is most appropriate to that situation, give reasons for his suggestion, adapt standard techniques and methods to suit the situation on hand, draw inferences, invent new techniques suitable to the situation; improvise and substitute instructional material.)

4. Develop skill in teaching, discussions, preparation of instructional materials and evaluation.

(Specifications: He will prepare lesson plans methodically, from a practical point of view making the maximum

utilisation of the available instructional media, develop interest in pupils, cater to the individual differences, write clearly on the chalk-board, develop and improvise teaching aids; contribute to discussions without offending other participant, take precautions in selecting or developing appropriate tools of evaluation and arrive at conclusions after careful interpretation of evaluation data).

5. Develop interests in teaching.

(Specifications: He will read more about Education than what is prescribed in the syllabus, contribute articles to magazines, become member in professional organisations, organise and participate in professional discussions.)

6. Develop positive attitude towards the teaching profession.

(Specifications: He will make a critical self evaluation of his teaching, lesson plans etc. With a view to improve the same, invite criticism from his fellow teachers regarding his work and accept constructive criticism, offer constructive criticism on matters related to Education, encourage and readily co-operate in all activities intended for professional growth, be open minded and receptive to new ideas without being dogmatic, be enthusiastic to experiment with new ideas and promote innovations.)

Course Content

Learning Experiences

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|---|--|
| 1. Nature of teaching; teaching as a science, teaching as an art. | a) Library work; b) Write ups about the role of teacher or nature of teachings. |
| 2. Objectives of teaching: General objectives, specific objectives; Classification of objectives — knowledge, | Working out specifications for a number of objectives for the teaching of different school subjects, |

understanding, application, skill (number, language, drawing, manual, observation, reasoning, discrimination, drawing inferences, problem solving).

Attitudes and interests (appreciation of beauty and form, scientific, democratic and cooperative attitudes, interest in hobbies). Determination of the appropriateness of different objectives at different levels of child development.

3. Devices of teaching:

- | | |
|--|--|
| a) <i>Verbal</i> : Narration and description; Exposition and illustration; Question and answer; Debates and group discussions. | a) Group discussions, |
| b) <i>Visual</i> : Demonstration of experiments; Dramatisation; Observation; Charts and models. | b) Demonstration of lessons, |
| c) <i>Others</i> : Surveys, Preparation of charts and models; Children's self expression in speech and writing; Pupil participation in community programmes. | c) Observation of lessons, |
| | d) Exhibition of aids, |
| | e) Participation in debates and discussions, |
| | f) Manuscript magazine, |
| | g) Community programmes. |

4. Teaching aids: Chalk board, Textbook, Chart and pictures, Specimens, Preparation of aids; display, preservation and proper use of the various teaching aids,

Collections, museum; exhibition; film strips; records, self directive material; teaching machines; apparatus for number work, counting and reading.

5. General principles of procedures; Individual and class instruction; Maxims of methodical procedure; Procedure in handling large classes; Procedure in handling multiple classes.; Group discussions on demonstration of the various procedures.
6. Types of lessons: Activity lessons; Correlated lessons; Revision lessons; Knowledge lessons; Appreciation lessons; Skill lessons.
 - a) Demonstration;
 - b) Observation;
 - c) Discussion;
 - d) Actual planning and teaching of the lessons.
7. General methods of teaching. Textbook recitation; Lecture; Herbartian procedure; Problem and Project method; Unit procedure; Work method and theory of correlation; Play way; Demonstration; Dalton plan; Heuristic method.
 - a) Demonstration;
 - b) Observation;
 - c) Discussion;
 - d) Actual planning and teaching of the lessons.
8. Modern trends in classroom instruction. Team teaching; Micro teaching; Programmed learning; Role playing.
 - a) Demonstration;
 - b) Observation;
 - c) Discussion;
 - d) Actual planning and teaching of the lessons.
9. Student field experiences:
 - a) School visitations for studying all the aspects mentioned.

- a) Understanding children—their abilities, knowledge, emotions and feelings.
- b) Understanding the school plant, environment, instructional facilities, school procedures; school records, teachers records; School rules and regulations, community; Inter-personnel relations in school.
- c) Establishing rapport with children. Organising school assemblies, physical, community and co-curricular activities.
- b) Participation in all such activities in the teacher education institution;
- c) Helping the cooperating practising school teacher in organising the various activities and recording the experiences in the daily diaries.

10. Evaluation:

Concept of evaluation; Objective based evaluation; Tools and techniques of evaluation; Construction of tests, scoring, using test results; Rating scales; Maintenance of cumulative records and profiles.

Study of some of the standardised tools of evaluation; Construction of ad-hoc tests; Teacher made tests; Scoring of tests.

Student Field Experiences

The student field experiences are intended to enable the student-teacher to test the theory in all subjects in practical and realistic situations. These experiences can be broadly divided into: (a) Student Teaching; (b) Sessional Work.

(A) Student Teaching

Student teaching is intended to give full experience to the student teacher in all the activities that are undertaken in the primary schools. The following are some of the salient features of this experience.

1. Before starting student teaching the student-teachers are briefed about the nature of work to be performed under this programme, during the student teaching seminar periods.
2. Student-teachers are given opportunity to acquaint themselves with the school plant, physical facilities, staff, student body and instructional procedures.
3. Demonstration lessons are given by teacher educators. Atleast two such lessons should be given by the teacher educators in each subject. Over and above this prescribed minimum the teacher educators are free to give as many lessons as they wish to demonstrate different techniques of teaching, depending on the need and availability of time and facilities. The demonstration lessons should be carefully observed by the student-teachers and the same should be discussed with the methods masters in the student teaching seminar classes.
4. Student-teachers are asked to observe classroom teacher. This programme may be more emphasised in the case of student-teachers with no previous teaching experience. The observations may last for one week, covering all the subjects each year and the observations should be carefully recorded and discussed in the student teaching seminars.

5. Student-teachers prepare for teaching—planning lessons and teaching units, including searching and fashioning aids, specimen curricular programmes, learning experiences in different subjects for different classes with a view to achieve certain specified objectives.
6. The student-teacher is expected to teach at least ten discreet lessons (at least one in each subject to one class) preferably in the campus school before internship begins.
7. Student-teachers are given experience in the teaching of correlated lessons, handling multiple classes, large classes and beginning classes.
8. Internship may be organised for a period of one month each in the first and second years in the third and second terms respectively. During this period the student teacher is attached to a senior primary school teacher for guidance and gradually he will be given complete control of class for some length of time to provide him with an opportunity of planning all class activities, maintenance of records, evaluation, school community contact, organisation of various co-curricular activities. His work may be so planned as to provide him with some experience of teaching different grades other than that of the co-operating teacher. Student teaching need not be limited to the attached campus school only, but should be extended to all kinds of schools in the neighbourhood. It may be advisable even to camp out for this purpose. This will facilitate community survey and community service activities.
9. The student-teachers are expected to teach at least 20 planned lessons including 5 discussion lessons each year during the internship period, during which they are expected to attend a 2 hour block student teaching seminar at the Primary Teacher Education Institute, for discussion of their experiences.

In the second year, during internship student-teachers may progressively be given more freedom and responsibility in planning and execution. They may be encouraged to deviate from standard procedures to experiment with new techniques.

10. Student teaching may begin in the second term of the first year and spread over till the end of the second term of second year.
11. Other experiences during the internship may include planning of school activities, child study, organisation of staff meetings, preparation of children's literature; selection and collection of folk songs, folk lore to suit children of different age-groups, selection of books and dramas for different subject fields, community survey, organisation of parents' days, school days, birthdays of national leaders and other routine activities the school normally undertakes.
12. The need for supervision cannot be over-emphasised. All the lessons need not be supervised and that too by the training school personnel only. About 60% supervised lessons may be enough. The number of lessons supervised may be increased according to the individual needs of student-teachers.

The practical sessional work connected with student teaching can be summarised as follows:

- a) Visits to schools for observation of different school programmes;
- b) Observation of demonstration and model lessons by the method-masters and senior teachers;
- c) Study of the organisation of primary school syllabus;
- d) Study of primary school textbooks;
- e) Preparation of monthly and yearly plans;
- f) Development of resource and teaching units;
- g) Development of specifications for a few selected objectives;
- h) Preparation of teaching aids;
- i) Preparation of community resources cards;
- j) Practice of teaching, using different technique;
- k) Analysis of spelling and hand-writing errors of primary school children;

- l) Preparation of a blue print of workable time-table;
- m) Acquaintance with school records and registers;
- n) Use of mass media like radio, tape recorders, slide, film strip and sound film projectors, magic lantern etc.
- o) Location of problems relating to Health and Hygiene, Food, Shelter, Clothing and Recreational activities in connection with the organisation of work-experience.

Records to be maintained :

Student-teachers :

1. A record of observations of model, demonstration or other lessons taught by classroom teachers, teacher-educators or co-operating teachers or other student-teachers.
2. A record of lesson plans developed in connection with classroom teaching programme.
3. Daily diary (Log book) consisting of :
 - a) A record of study of school.
 - b) A record of participation and organisation of activities other than teaching in the co-operating school.
 - c) Notes from self-study and library work.

Supervisors and Cooperating teachers:

1. A record of student-teachers' day to day progress,
2. Mid-term and annual evaluation sheets;

(B) Sessional Work

Student-teachers are expected to do practical sessional work in connection with the theory courses—professional, content and methodology; and the types of work recommended under learning experience may be taken as purely suggestive and not rigid. The

teacher educators are free to modify the same without any disturbance to the underlying spirit, to suit the local conditions. The sessional work should follow a theoretical discourse or can also form the basis for a theoretical discussion and in no case the same should be divorced from theory work, as it goes against the practical orientation of the syllabus. The following are the seven categories of sessional work recommended:

1. *Academic activities*

- a) Seminars;
- b) Extension lectures;
- c) Discussions on specified topics, such as various techniques of teaching, curricular changes etc.

2) *Assignments*

A) *Written assignments*

- a) Term papers;
- b) Preparation of school improvement projects,
- c) Critical review of textbooks;
- d) Survey of children's literature in regional languages available in the state;
- e) Book reviews;
- f) Development of a medical report card and follow up of medical report;
- g) Preparation of balanced diet sheets taking seasonal crops, fruits and vegetables into consideration.

B) *On the Spot Studies and Preparation of Reports*

- a) Study of problems of wastage and stagnation in different grades of primary schools;
- b) Study of enrolment and attendance problems;

- c) Study of staff pattern in large and small schools;
- d) Observation of teacher behaviour in different situations.
- e) Study of teacher-pupil interaction;
- f) Study of behaviour of children of different age-groups;
- g) Observation of children's behaviour in different group situations;
- h) Study of physical and social environment of children;
- i) Study of slow and fast learners;
- j) Study of ancillary programmes in schools;
- k) Study of school physical facilities in rural, semi-urban and urban areas:
- l) Study of the working of the school libraries;
- m) Study of school children, listing their unhealthy habits and suggesting remedial measures.

3. *Self study programmes*

- a) Supervised or guided study;
- b) Individual study;
- c) Development of bibliographies;
- d) Note making and note taking.

4. *Institutional visitations*

- a) Visits to different types of schools;
- b) Visits to children's homes;
- c) Visits to factories;
- d) Visits to extension centres;

5. *Interviews with*

- a) Parents

- b) Teachers
- c) Headmasters
- d) Supervisors.

6. *Co-curricular Activities*

- a) Practice in planning, organization and evaluation of school activities such as morning assembly, self government, social, cultural and recreational activities, Parent-Teacher-Student Associations, field-trips, excursions, health-weeks etc;
- b) Organisation and evaluation of radio listeners clubs, exhibitions, museums, subject clubs;
- c) Collections of sayings of great personalities;
- d) Collection of nursery rhymes, patriotic and devotional songs and their use in appropriate situations;
- e) Organisation of bulletin boards, manuscript magazines, wall magazines;
- f) Preparation of picture albums and news-clipping albums.

7. *Evaluation*

- a) Acquaintance with different types of achievement tests, intelligence tests, personality tests, and various techniques of evaluation;
- b) Study of question papers;
- c) Development of test items for measuring linguistic skills—unit tests, new type tests, their administration, scoring and interpretation of results and offering remedial measures;
- d) Development of a cumulative record card.

SUGGESTED REFERENCE BOOKS

COURSE I

Principles and Problems of Primary Education

1. Blachamp, George A. *Planning the Elementary School Curriculum*. New York: Allyn and Bacon, 1958.
2. Beck, Robert H. and others. *Curriculum in Modern Elementary School*. New York: Prentice Hall, 1953.
3. Blachamp, George A. *Planning the Elementary School Curriculum*. New York: Allyn and Bacon, 1956.
4. Caswell and Camp Bell. *Curriculum Development*. New York: American Book Co.
5. Carr William, G. *World Trends in Education*. Madras: The Society for the Promotion of Education in India, 1967.
6. *Children and Their Primary Schools*—A Report of the Central Council for Education (England), Vols. I and II. London: HMSO, 1967.
7. Dewey John. *School and Society*. Chicago, Chicago Press, 1915.
8. Dotterns, Robest. *The Primary School Curriculum*. Paris UNESCO, 1962, Kee 1964.
9. Douglas, J.W.B. *Home and the School*. London: Macgibbon and Kee, 1964.
10. Dutton, Wilbur H. and Hocket, John A. *The Modern Elementary School, Curriculum and Methods*. New York: Rinehart and Co., 1959.
11. Harap Henry. *Improvement of Curriculum in Indian Schools*. New Delhi : Ministry of Education, Govt. of India, 1959.
12. Heck, A.O. *Introduction to Exceptional Children*. New York: McGraw Hill, 1953.
13. Hurley Beatrice Davis. *Curriculum for Elementary School Children*. New York: The Ronald Press Co. 1957.
14. Jayaraman, M. *Stagnation and Wastage in Primary Schools*. New Delhi: NCERT, 1967.

15. Kearney, Nolan C. *Elementary School Objectives: A Report of the Mid-Century Committee on Outcomes in Elementary Education*. New York: Russell Sage Foundation, 1953.
16. Lewis, Gortrude M. *Educating Children in Grades Four, Five and Six*. Washington: U.S. Dept., 1958.
17. Lourenco, M.B. and others. *The Training of Rural School Teachers*. Paris: UNESCO., 1953.
18. Manning, Duane. *The Qualitative Elementary Schools Characteristics of Excellent Curriculum*. New York: American Book Co., 1954.
19. Merele, E., and Gall, E.D., (Ed): *Special Education for the Exceptional*. Boston: Porter Sargent Publisher, 1955.
20. Millard, C.N. and Huggitt, Albert J. *An Introduction to Elementary Education*, New York: McGraw Hill, 1953.
21. Ministry of Education, Govt. of India. *Report of the National Committee on Womens Education*: New Delhi, 1958-59.
22. Ministry of Education, Govt. of India: *Draft Perspective Plan for Development of Elementary Education in India, 1961-75*.
23. Naik, J. P. *Elementary Education in India—the Unfinished Business*, Bombay: Asia Publishing House, 1966.
24. Naik, J.P. *The Single Teacher School*. New Delhi: Ministry of Education, 1955.
25. National Council of Educational Research and Training. *Indian Year Book of Education—Elementary Education (2nd Year Book)*. New Delhi: N.C.E.R.T. 1964.
26. N.C.E.R.T. *The Problems of Large Classes*. New Delhi: N.C.E.R.T. 1965.
27. *National Seminar on Wastage and Stagnation*. New Delhi: Department of Field Services, N.C.E.R.T., 1968.
28. New South Wales. Department of Education. *Curriculum for Primary School*. Sydney: A.H. Pettifer, Govt. Printers, 1957.
29. Otto, Henry J. and others: *Class Size Factor in Elementary Schools*. Austin: The Univesity of Texas, 1954.
30. Otto, Henry J. and others. *Principles of Elementary Education*, New York: Rinehart, 1956.

31. Phillips, C.A. *Brief Syllabus for Curriculum Construction in the Elementary School Course No. E. 406.* Columbia: Lucas Brothers, 1956.
32. Pires, E.A. and others. *The Training of Rural School Teachers.* Paris: UNESCO, 1953.
33. Planning Commission, Govt. of India. *Report of the Five Year Plans* (First 1952, Second 1956 and Third 1961), New Delhi.
34. Ragan, William B. *Modern Elementary Curriculum.* New York: The Dryden Press, 1956.
35. Raymont (T.). *Seven to Eleven: Some Problems of the Junior School.* London: Longmans Green, 1946.
36. Rucker, W. Ray. *Curriculum Development in the Elementary School.* New York: Harper, 1960.
37. Safaya, R.N. *Current Problems in Indian Education* (Part I and Part II) Delhi: Dhanpat Rai and Sons.
38. Safaya, R.N. *Development of Educational Theory and Practice (a Treatise on Principles of Education)* Delhi: Dhanpat Rai and Sons.
39. Saueier (W.A.). *Theory and Practice in the Elementary School.* New York: MacMillan, 1951.
40. N.I.E. *Educational Wastage and Stagnation in India.* New Delhi: N.C.E.R.T., 1967.
41. Sen, I.M. *History of Elementary Education in India.* Calcutta: The Book Co. Ltd., 1933.
42. Shirmali, K.L. *Education in Changing India.* Bombay: Asia Publishing House, 1965.
43. Subba Rao, C.S. *Basic Education in Practice.* Secunderabad: Ajanta Publication, 1958.
44. Subba Rao, C.S. *Basic Education in Principles.* Secunderabad: Ajanta Publication, 1960.
45. *The Education of Primary Teachers in India-Report of the First National Seminar.* New Delhi: Ministry of Education, Govt. of India, 1960.
46. UNESCO. *Preparation and Issuing of the Primary School Curriculum.* Paris: UNESCO., 1958.
47. UNESCO. *The One Teacher School.* Paris: UNESCO. 1961.

COURSE II

Elementary Educational Psychology and Child Development

1. Anne, Anastasi. *Differential Psychology - Individual and Group Differences in Behaviour*. New York: MacMillan, 1958.
2. Bandura, A. and Walters, R.H. *Social Learning and Personality Development*. New York: Holt, Rinehart and Winston, 1963.
3. Bigge, M.L. and Hund, M.P. *Psychological Foundations of Education*. New York: Harper and Row Publishers, 1958.
4. Boring, E.S., Longfeld, H.S. and Weld, H.P. (Eds.) *Foundations of Psychology*. New York: John Wiley and Sons, 1965.
5. Carmichael, L. (Ed.). *Manual of Child Psychology*. New York: John Wiley and Sons, 1954.
6. Dutt, Sunittee. *Learning Process*. New Delhi: N.C.E.R.T. 1963.
7. Crow and Crow. *Mental Hygiene in the School and Home Life*. McGraw-Hill.
8. Hahoda, Marie. *Current Concepts of Positive Mental Health*. 1958.
9. Hall, C.S. and Lindzeys, Z. *Theories of Personality*. New York: John Wiley and Sons, 1957.
10. Hock, A.O. *Introduction to Exceptional Children*. New York: McGraw-Hill, 1953.
11. Johnson, R.C. and Medinnus, G.R. *Child Psychology—Behaviour and Development*. New York: John Wiley, 1965.
12. Lambert, Hazel M. *Early Childhood*. Boston: Allyn and Bacon, 1960.
13. Lehner, E.I. and Kube, E. *The Dynamics of Personal Adjustment*. Englewood Cliffs, N.J.: Prentice Hall, 1955.
14. Maslow, A. H. *Motivation and Personality*. New York: Harper and Bros., 1954.
15. Merele, E. and Gall, K.D. (Ed.). *Special Education for the Exceptional*. Boston: Porter Sargent Publisher, 1955.

16. Mowrer, O.H. *Learning Theory and Behaviour*. New York: John Wiley, 1960.
17. Rogers (Dorothy). *Mental Hygiene in Elementary Education*. Boston: Houghton Mifflin Co., 1953.
18. Safaya, R.N. and Bhatia, B.D. *Educational Psychology*. Delhi: Dhanpat Rai and Sons.
19. Saffer, L.F. and Shoben, E.J. Jr. *The Psychology of Adjustment*. Boston: Houghton Mifflin and Co., 1956.
20. Staats, W. *Human Learning*. New York: Holt, Rinehart and Winston, 1964.
21. Thorpe, L.P. Schmuller, A. N. *Personality - An Interdisciplinary Development*. New York: Holt, Rinehart and Winston 1963.

COURSE III

School Organization and Administration

1. Baldwin, Sara E. and Osborne, E.G. *Home School Relationship*. New York: Progressive Education Association, 1935.
2. Brownell, Clifford Lee and others. *Public Relations in Education*. New York: McGraw Hill Book Company, Inc., 1955.
3. Bun, James B. and others. *Elementary School Administration*. Boston: Allyn and Bacon, 1963.
4. Buch, Robert Helson. *Teacher Pupil Relationship*. New York: Prentice Hall.
5. Cramer, Roscoe Coe. Y. and Domian Ottoe. *Administration and Supervision in Elementary School*. New York: Harper.
6. Dean, Stuart E. *Elementary School Administration and Organisation*. Washington: U.S. Office of Education: 1960.
7. Department of Elementary School Principals, N.E.A. *Human Values in the Elementary School*. Washington: The Department, 1952.
8. Dougherty, James Henry and others. *Elementary School Organisation and Management*. New York: The MacMillan Co., 1965.

9. Franklin, E.W. *Status of Teachers in India*. New Delhi: W.C.O.T.P 1967.
10. Garry, Ralph. *Guidance Technique for Elementary Teachers*. Ohio: Charles, E. Merrill, 1963.
11. Grimshaw, E. *The Teacher Librarian* (Arnold and Sons).
12. Hazel, F. Cabbard. *Working with Parents*. Washington: U.S.A. Govt. Printing Office, 1949. P.41.
13. Hennry, J. Otto. *Elementary School Organization and Administration*. New York: Appleton-Century Crofts, Inc., 1954.
14. Hicks, Hanne J., *Administrative Leadership in the Elementary Schools*. New York: The Ronald Press Company, 1956.
15. Hicks, William V. and Jameson, Marshall C. *The Elementary School Principal at Work*. Englewood Cliffs: Prentice Hall, 1957.
16. Holroyd. *The Organization of School Activities*. (Pitman).
17. Hugget, Alleest, J. *Practical School Administration*. Champaign Illinois.
18. Jacobson, Paul B. and Reavis, William L. *Duties of School Principals*. New York: Prentice Hall Company Inc., 1954.
19. Kochar, D.K., *School Organization*. Jullundhar: Ambala: University Publishers, 1955.
20. Kowitz, Gerald T. and Kowitz, Norma G. *Guidance in the Elementary Classroom*. New York: McGraw-Hill Co., 1953.
21. Kyte, George C. *The Elementary School Teacher at Work*. New York: Dryden, 1958.
22. Lawrence, H.S.S. *In-service Teacher Education*. New Delhi: Ministry of Education, 1956.
23. Martinson, Ruth and Smallenburg, Heavy. *Guidance in Elementary School*. Englewood Cliffs. 1958.
24. Mcknown. *Extra Curricular Activities* (McMillan).
25. Mickelson, Peter, Palmer and Hansen, Kenneth Ltd. *Elementary School Administration*. New York: McGraw Hill, 1957.

26. Ministry of Education. *Self Reform in School. A Report by Working Educators.* (Publication No. 10) New Delhi. 1955.
27. Moffit. *In-service Education for Teachers.* Washington: The Centre for Applied Research in Education, 1963.
28. Naik, J.P. *The Single Teacher School.* New Delhi: Ministry of Education, Govt. of India, 1955.
29. Peters, Herman J. and others. *Guidance in Elementary Schools—A Book for Reading;* McMillan and Co. 1963.
30. Rabindra Menon. *Teacher and the Parent.* Delhi: Ministry of Education, Govt. of India, 1962.
31. Ralph, R.G. *The Library in Education.* London: Turnstile Press.
32. Ranganathan. *Suggestions for the Organistaion of the Libraries in India* (O.U.P.)
33. Ranganathan, S.R. *School and College Libraries* (Madras Library Association).
34. Reader, Edwin, H. *Supervision in the Elementary School.* Boston: Houghton Mifflin Company, 1953.
35. Safaya, R.N. and Bhatia, B.D. *School Organization and Administration.* Delhi: Danpat Rai and Sons.
36. Scott, C.A. *School Libraries: A Short Manual* (Cambridge University Press).
37. Thompson. *Your School Clubs.* (Dutton).
38. Virginia Bailard and Ruth Strong. *Parent Teacher Conferences.* New York: McGraw Hill Book Co., Inc., 1964.
39. Wadia, Khorshed, A. *Guidance of the Gifted.* New Delhi. N.C.E.R.T. 1967.
40. Wahlquist, John T. and others. *The Administration of Public Education.* New York: The Ronald Press Co., 1952.
41. Walraven and Hall Quest. *Library Guidance for Teachers.* (John Willey and Sons).

COURSE IV

Health Education and Community Education

1. Andrews. *Physical Education for Boys in Indian School*. Madras: Little Flower Co.
2. Bucher, Charles A. and Reade, Evelyn H. *Physical Education and Health in the Elementary School*. New York: McMillan and Co., 1964.
3. Davies. *Health Education and Hygiene for Training Colleges* (Longmans).
4. Furneaux and Smart. *Human Physiology* (Longmans).
5. Kindred Les Lie W., *School Public Relations*. Englewood Cliffs, N.J. Prentice Hall Inc., 1958.
6. Mitchell and Mason. *Theory and Play*. (Barnes)
7. Olsen, Edward G. *School and Community*. New York: Prentice Hall Inc., 1954.
8. Party (Willard Walter). *Teaching Health and Safety in Elementary Grades*. New York: Prentice Hall, 1953.
9. Sharman. *Introduction to Physical Education* (Barnes)
10. Williams. *Principles of Physical Education*. (Saunders)
11. Batten, T.R. *Communities and Their Development*. London: Oxford University Press.
12. Batten, T.R. *School and Communities in the Tropics*. London: Oxford University Press, 1959.
13. Dey, S.K. Panchayat Raj—A. *Synthesis*. Bombay Asia Publishing House.
14. Grinell, J.C. and others. *The School and Community Education and Public Relations*. New York: The Ronald Press Company, 1955.
15. Ministry of Education, Govt. of India. *School and the Community*. New Delhi, 1961.
16. Shanti, Tayal. *Community School in the Philippines*. Delhi Central Institute of Education, 1958.

17. Shrimali, P.L. *Education and the Community Development*. Udaipur: Vidya Bhawan Training College.
18. Srivastava, K.N. *School Community—A Handbook for Training Institutions for Primary Teachers*. New Delhi. Ministry of Education: and Community Development and Cooperation, 1962.
19. Thirtha, N.V. *Community Activities in Basic Education*. Secunderabad Ajanta Printers.
20. *Village School Teacher—His Role in Community Development and Need for His Training* (Seminar Report of the District Education Officers of Mysore State): Mysore: Orientation and Study Centre.

COURSE V

Content and Methodology of Teaching First Language

1. Bakar, William D. and Strandness, T. Benson, *The Experience of Writing*. Englewood Cliffs: Prentice Hall, 1958.
2. Ballard. *Language and Thought*. London: University of London Press.
3. Betts, Emmett Albert. *Foundations of Reading Instruction with Emphasis on Differentiated Guidance*. New York: American Book Company.
4. Billows, F.L. *Techniques of Language Teaching*. London: Longmans, 1962.
5. Burton (William H.) *Reading in Child Development*. Indiana Polis: Bobbs—Merril, 1956.
6. Central Bureau of Textbook Research, Ministry of Education. *Analysis Sheet for the Objective Data in the Language Text Books for Primary Schools*. (Classes I—V). New Delhi: The Bureau, 1960.
7. Deboer, John J. and Dallmann, Mortha. *Teaching of Reading*. New York: Holt, Rinehart and Winston, 1964.
8. Dechant, Emerald V. *Improving the Teaching of Reading*. N.J. Prentice Hall, 1964.

9. Delhi Linguistic Circle. *Language Teaching Techniques—Proceedings of a Symposium*, 1963.
10. Department of Elementary School Principals. *Janie Learns to read: A Handbook for Parents Whose Child will Soon Learn to Read*. Washington Department, 1956.
11. Dolch, Edward William. *Problems in Reading*. Champaign, Illinois. The Garrard Press, 1948.
12. Greene, Harry A. *Developing Language Skills in the Elementary School*. 1959.
13. Hersick, Virgil E. and Jacobs, Leland B. (Ed.) *Children and the Language Arts*. N.J. Prentice Hall, Inc., 1957.
14. International Bureau of Education. *The Teaching of Reading*. Paris UNESCO.
15. McKee Paul. *Language in the Elementary School*. 1939.
16. Ryburn, W.M. *Teaching of Mother Tongue*. 1954.
17. Ryburn, W.M. *Suggestions for Teaching of Mother Tongue*. 1950.
18. Smith, Nila Banton. *Reading Instruction for Today's Children*. New Jersey: Prentice-Hall, 1963.
19. UNESCO. *Teaching of Modern Languages*. Paris: UNESCO, 1953.
20. UNESCO. *The Use of Vernacular Languages in Education*. Paris UNESCO, 1958.
21. West. *Language in Education*. London: Longmans.

COURSE VI

Content and Methodology of Teaching Second Language

(A) HINDI

1. Basu, A.N. and others. *A Study in the Vocabulary of Hindi Primers*. Delhi: Central Institute of Education, 1959.

2. Bhatia, Hans Raj. *Rachna Ki Shiksha*. Bombay: Orient Longmans, 1958.
3. Gupta, Tansukh Ram. *Surya Hindi Vyakaran*. Delhi: Surya Prakashan, 1961.
4. Madholi, Abdul Gaffar. *Phali Kabsha men Hindi. Sikhaney ka Ruchikar Dhang*. 1958.
5. Mishra, Shalendra Nath and Pandey, Nirmala Rani. *Sahitya Prabha Bhog*. Lucknow: Tej Kumar, 1960.
6. Safaya, R.N. *Hindi Vyakaran*. Jullundhar: Punjab Kitab Ghar.
7. Safaya, R.N. *Sanskrit Shikshan Vidhi* (Hindi Edition). Jullundhar. Punjab Kitab Ghar.
8. Safaya, R.N. *Hindi Shikshan Vidhi*. Jullundhar, Punjab Kitab Ghar.
9. Safaya, R.N. *Hindi Shikshan Vidhi (J.B.T. Edition)* Jullundhar; Punjab Kitab Ghar.
10. Safaya, R.N. *Bhasha Aur Sahitya Ka Vivechan* (On Literacy Criticism in Hindi) Delhi: S. Chand and Co.
11. Sharma Rajendra. *Hindi Ratana Manjari*. Delhi: National Publishing House, 1961.
12. Sharma, Shakuntla. *Subodh Bharti*. Lucknow: Avadh Publishing, 1961.
13. Shrivastava, S.N. *Kavita Ki Shikhsa*. 1962.
14. Sinha, Shatrughan Prasad. *Hindi Bhasha Ki Shikshan Vidhi—1961*. Delhi Pustak Sadan.
15. Tripathi, Kamlapati. *Bhasha Shikshan*. Varanasi: Nand Kishore and Brothers.
16. Varma, Dharendra. *Hindi Bhasha Aur Lipi*. Allahabad: Hindustan Academy.
17. Varma, Ram Chandra. '*Hindi Prayog*' Varanasi: Sahitya Ratan Mala Karyalaya.

(B) ENGLISH

1. Bhatia, H.R. *The Teaching of English Spelling*. London: Oxford University, 1956.
2. Forrester, J.F. *Guide Book to the Teaching of English in Schools forms I to III* Madras: Director of Public Instruction, 1951.
3. French. *The Teaching of English Abroad*, Parts I, II, & III (O.U.P.)
4. Gatenby. *Teaching a Modern Language*. (Orient Longmans).
5. Gurrey. *The Teaching of English as a Foreign Language*. (Longmans).
6. Mallinson. *Teaching a Modern Language* (Heinemann).
7. Mehta. *Teaching of English in India* (Longmans).
8. Morris. *The Art of Teaching English as a Living Language*. (McMillan).
9. Ryburn. *Suggestions for Teaching of English in India*. (Oxford).
10. S.I.T.U. Council of Educational Research. *Written Expression in English*. Madras: S.I.T.U. Publications, 1960.

COURSE VII*Content and Methodology of Teaching Mathematics*

1. Adams, L.D. *Background to Primary School Mathematics*. London: Oxford University Press, 1959.
2. Adler, Irving. *Mathematics: the Story of Numbers, Symbols and Space*. New York: Golden Press.
3. Aiyangar, N. and Kuppuswamy. *Teaching of Mathematics in the New Education*. Delhi: Universal Publishers, 1964.
4. Backer, C.C.T. *Introduction to Mathematics*. London: Newmen, 1966.
5. Ballard, Phillip Boswood. *Teaching the Essentials of Arithmetic*. London: Newmen, 1966.

6. Brueckner, Leo J. and others. *Reaching Number Goals*. New York: John C. Winston Co., 1961.
7. Carter, H.C. *Modern Basic Mathematics Series*. Cambridge: Addison Wesley Press, 1951.
8. Downes, L.W. and Paling, D. *The Teachings of Arithmetic in Primary Schools*. London : Oxford University Press, 1959.
9. Gattegno, Caleb. *A Teacher's Introduction to the Cuisenaire - Galtegn Method of Teaching Arithmetic*. New Delhi: The Author, 1960.
10. Dwight, L.A. *Modern Mathematics for the Elementary Teacher*. New York: Holt Rinehart and Winston, 1966.
11. Govt. Central Pedagogical Institute. *Teaching of Mathematics - Some Investigations*. Allahabad: C.P.I. 1953.
12. Hickerson, J. Allen. *Guiding Children's Arithmetic Experiences: the Experience Language Approach to Numbers*. New York: Prentice Hall 1963.
13. Indianapolis Public Schools. *Arithmetic in Kindergarten and Grades 1, 2 and 3. A Tentative Guide for Teachers*. Bulletin No. 39 Indian: Indianapolis.
14. International Bureau of Education and UNESCO. *Introduction to Mathematics in Primary Schools*. Geneva: I.B.E., 1950.
15. Johnson, D.A. and Rabitz, R. *New Mathematics in Our Schools*. New York: The McMillan, 1966.
16. Land, F.W. *New Approaches to Mathematics Teaching*. 1963.
17. Lasalle, J.P. and Lezschetz, S. *Recent Soviet Contributions to Mathematics*. New York: McMillan, 1962.
18. Lovell, K. and Smith, C.H.J. *The Teaching of Arithmetic in Primary Schools*. London: University of London Press, 1963.
19. Mathematical Association, London. *The Teaching of Mathematics in Primary Schools*. London: G. Bell and Sons, 1958.
20. Mc. Swain, E.T. and Cooke, Ralph, J. *Understanding and Teaching Arithmetic in the Elementary School*. New York: Henery Holt and Co., 1958.
21. Ministry of Commerce and Industry. *Teaching in Metric System*. New Delhi: Govt. of India.

22. Moore, E.T. *Teach Yourself Mathematics*. London: The English Universities, 1960.
23. Morron (Robert Lee). *Teaching Arithmetic in the Elementary School*. Vol. 2. Intermediate grades. New York: Silver Burdettco, 1938.
24. Mott, E.M. *First Step in Practical Number Work*. London: Evans Brothers.
25. Piaget, (Jean). *The Child's Conception of Numbers*. London: Rontledge, 1952.
26. Shah, M.M. *Diagnostic Tests in Basic Arithmetic Skills*. Baroda: Baroda University, 1956.
27. Shea James T. *Working with Numbers: Self-Instruction in Arithmetic*. Austin: The Stock Company, 1957.
28. S.I.T.U. Council of Educational Research. *Teaching of Mathematic*. Madras: S.I.T.U. Publications, 1962.
29. Solomon, Charles. *Teach Your Child to Enjoy Maths*. Lond: Pearson, 1964.
30. Summer. *The Teaching of Arithmetic and Elementary Mathematics*. (Blackwell).
31. Thomspson, H.A. *Colour-factor Mathematics: The Fifth Year*. London: Heineman Educational Books Ltd., 1964.
32. Thorpe, Clearter B. *Teaching Elementary Arithmetic*. New York: Harper, 1962.
33. Thyne (James M.) *Patterns of Error in the Additional Number Facts*. London: University Press 1954 (Publications of the Scottish Council for Research in Education).

COURSE VIII

Content and Methodology of Teaching General Science

Arey, Charles K. *Science Experiences for Elementary Schools*. New York: Teachers' College Columbia University. 1942.

2. Blough, Glenn O. and others. *Elementary Schools Science and How to Teach It*. New York: Dryden Press Inc., 1958.
3. Blough, Glenn O. and others. *Making and Using Classroom Science Materials in the Elementary School*. New York: Rinehart and Co., 1959.
4. Canthorne, H.H. *Science in Education—Its Aims and Methods*. London: O.U.P.
5. Craig, Gerald S. *Science for the Elementary School Teachers*. Boston: Ginn and Co., 1958.
6. Croxton, W.C. *Science in the Elementary School including an Activity Programme*. London: McGraw-Hill Book Co., 1937.
7. Doss, Ghansham. *Suggestions for the Teaching of Physics and Chemistry in India*. Oxford: Oxford University Press.
8. *General Science Handbook of Activities*. (Classes VI-VIII). New Delhi: N.C.E.R.T., 1964.
9. Heiss and others. *Modern Methods and Materials for Teaching Science* (MacMillan)
10. International Bureau of Education and U.N.E.S.C.O. *Introduction to National Sciences in Primary Schools*. Geneva: 1949.
11. Leeming, Joseph. *The Real Book of Science Experiments*. London: Denis, Dobson, 1958.
12. Lewis, Jane E. and Potter, Irene C. *Teaching of Science in the Elementary School*. N.J. Prentice Hall, 1961.
13. London Science Masters' Association. *Teaching of General Science*. (John Munay).
14. Lowe, Homer J. *Classroom and Field Studies in Elementary School Science*. California: The National Press, 1957.
15. Navarra, John Gabriel and Zaffaroni Joseph. *Science Today for the Elementary School Teacher*. Illinois: Peterson and Co., 1960.
16. N.C.E.R.T. *General Science—Handbook of Activities* (for classes VI-VIII). New Delhi: N.C.E.R.T., 1964.
17. Schneider, Herman and Schneider, Nina. *Science for Work and Play—Teachers Guide*. Boston: Heath and Co., 1959.

18. Schneider, Herman and Schneider, Nina. *Science Far and Near*. Boston: Heath and Co., 1959.
19. Schneider, Herman and Schneider, Nina. *Science Far and Near*. Boston: Heath and Co., 1969.
20. Schneider, Herman and Schneider, Nina. *Science for Today and Tomorrow*. Boston: Heath and Co., 1959.
21. Schneider, Herman and Schneider, Nina. *Science in Your Life*. Boston: Heath and Co., 1959.
22. Schneider, Herman and Schneider, Nina. *Science in Our World*. Boston: Heath and Co., 1959.
23. Sumner. *The Teaching of Science*. (Blackwell).
24. Tannenbacum, Harold E. and Stillman, Nathan. *Science Education for Elementary School Teachers*. Boston: Allyn and Bacon, 1961.
25. U.N.E.S.C.O. *Introduction to National Science in Primary Schools: XIIth International Conference On Public Education Convened by U.N.E.S.C.O.*, n.d. (International Bureau of Education Publication, No. III).
26. Vessel, Mathew Faud Wong, Herbest H. *Teaching Science through Holidays and Seasons with Science bulletin boards, exhibits and activities*. California, Fearon Publishers, 1959.
27. Westaway. *Science Teaching* (Blackie).

COURSE IX

Content and Methodology of Teaching Social Studies

1. Allen Grahah. *Social Studies in the Primary School 23rd Year Book*. Washington: National Council for Social Studies, 1952.
2. Allen, Jack. *Teacher of the Social Studies*. Washington: National Council for the Social Studies.
3. Ambrose, Edna and Miel, Alice. *Childrens Social Learning*. Washington: Association for Supervision and Curriculum Development, N.E.A., 1955.

4. Anand, C. L. *Teaching of Social Studies in Indian Schools*. Solan: Karmar Sons. 1963.
5. Carpenter, Helen McCracken. *Skill in Social Studies in the Elementary School*. Washington: National Council for the Social Studies.
6. Desai, D.M. *Recent Concept of Social Studies*, Bombay: Vora and Co., 1962.
7. Dunfee, Maxime and S.H. *Social Studies through Problem Solving*. New York: Holt Rinehart and Winston, 1966.
8. Ellsworth, Ruth and Sand Ole (Ed). *Improving the Social Studies Curriculum*. Washington: National Council for Social Studies, 1955.
9. Gege, Rand., N.L. *Research on Teaching the Social Studies*. (Edited). Chicago: McNally and Co., 1963.
10. Gilbough, John W. *Social Studies Resource Unit for the Sixth Grade*. SanJose: Modern Education Publishers, 1955.
11. Hanna, Paul and Lee, John R. *Content in the Social Studies in Elementary Schools 32nd Year Book*, N.C.S.S., 1962.
12. Hill, Wilhelmina. *Social Studies through Problem Solving*. New York: Holt, Rinehart and Winston, 1966.
13. Horn. *Methods of Instruction in the Social Studies* (Scribner).
14. Jarolinek, J. *Social Studies in Elementary Education*. New York: The MacMillan Company, 1963.
15. Johnson. *Theory and Practice of the Social Studies*. (MacMillan).
16. John, Jarolinek and others. *Readings for Social Studies in Elementary Schools*. London: Collier MacMillan Co. Ltd.
17. Lacey, J.H. *Teaching the Social Studies in Elementary Schools*. Minneapolis. 15-Minn: Burgess Publishing Co.
18. Matcalf, Lawrence E. *Research on Teaching the Social Studies. A Handbook of Research on Teaching*. Chicago: Nally and Co., 1963.
19. Michael, John U. *Social Studies for Children in a Democracy*. Englewood Cliff: Prentice Hall, 1956.

20. Michaelies, J.K. (Editor). *Social Studies in Elementary Schools*. (Thirty Second Year Book) Washington D.C. National Council for the Social Studies. N.E.A.
21. Mudaliyar, M.R. Perumal. *A Guide to the Teachers of Social Studies in Higher Elementary School*. Madras: Directorate of Public Instruction, 1953.
22. National Society for the Study of Education. *Illinois Social Studies in Elementary Schools*. Chicago: 1957.
23. Nesiab, K. *Social Studies in Schools*. (Oxford University Press).
24. Nicholson and Wright. *Social Studies for Future Citizens* (George Harrap).
25. Preston. *Teaching Social Studies in the Elementary School*. (Rinehart).
26. Quillen and Hanna. *Education for Social Competence* (Scot, Foreman and Co.)
27. Ralph, C. Preston. *Teaching School Studies in the Elementary Schools*. New York: Rinehart Co., Inc.
28. Shiada, B.D. *Suggestions for Teachings of Social Studies*. Jullundhar City: Punjab Kitab Ghar Ltd.
29. Shuelt, Laura H. *Developing Citizenship through School Activities*. Washington; National Council for the Social Studies, NEA., 1949.
30. Wesley, E.B. and Adams, M.A. *Teaching of Social Studies in Elementary Schools*. Boston: D.C. Heath, 1952.

COURSES X—XI

Content and Methodology of Work-Experience and Art Education

1. Ash (Beryl) and Rapport (Barbara). *Creative Work in the Junior School*. London: Methuen, 1957.
2. Ash, Beryl and Raport, Barbara. *Skills in the Junior School*. London: Methuen & Co., 1960.

3. Bhartiya, A.K. *Bal Chitrawali Bhag I*, Delhi, New India, 1960.
4. Brown (Marine E.) *Elementary Handcrafts for Elementary Schools*. New York; Exposition Press; 1956.
5. Conrad, George. *Process of Art Education in the Elementary School*. New Jersey, Prentice Hall, 1964.
6. Dean, Joan. *Art and Craft in the Primary School*. London: Adam & Charles, 1961.
7. Dimmack, Max. *Modern Art Education in the Primary School*. London, MacMillan and Co., 1958.
8. Dorsey, Elsie. *Creative Art and Crafts for the Classroom*. Rigina, School Aids and Textbook Pub., 1955.
9. Gaitskell, Charles D. and Gaitskell, Margret R. *Art Education for Slow Learners*. Chas A. Bennett, 1962.
10. Centanni, Angelk C. and Spaulding, B. W. *Industrial Art Activities for Kindergarten, Primary General Elementary*. California: The National Press, 1952.
11. Guggenheimer, Richard. *Creative Vision: For Art and for Life*. New York: Harper & Brothers, 1960.
12. Harrison, Elizabeth. *Self-Expression through Art—An Introduction to Teaching and Appreciation*. Toronto: W.G. Gage Ltd., 1960.
13. Hellier (Gay). *Indian Child Art: a Handbook for Teachers*. Oxford: University Press, 1951.
14. Jefferson, Blanche. *Teaching Art to Children the Values of Creative Expression*. 1961. Boston: Allyn and Bason: 1961.
15. Marshall, Sybil. *Experiment in Education*. London; Cambridge. University Press, 1961.
16. Moore, Frank C. and others. *Handicrafts for Elementary Schools: A Handbook of practical suggestions for teachers*. Boston: D.C. Heath & Co., 1953.
17. Newkrik, Louis V. *Integrated Handwork for Elementary Schools: Teacher's Guide in use and techniques*. New York, Silver Burret Company, 1940.

18. Wankelman, Willard and others. *Arts and Crafts for Elementary Teachers*. Dubuque, (Iowa) William C. Brown Co., 1958.
19. Mills, John. *Instructions to Young Artists*. London, Museum Press, 1960.

COURSE XII

Seminar Course in Student Teaching

1. Adams. *Modern Developments in Educational Practice*. (U.L.P.)
2. Adam, Harold P. and Frank, G. Dickey. *Basic Principles of Student Teaching*. New York: American Book Co., 1956.
3. Anderson, C.J. *Visiting the Teacher at Work-Case Studies of Directed Teaching*.
4. Andrews, L.O. *Student Teaching*. New York: The Centre for Applied Research in Education Inc.
5. Brown, J.W., Lewis, R.B. and others. *Audio-visual Instruction—Materials and Methods*. New York: McGraw Hill Book Co.
6. Catty, Nassey. *A First Book on Teaching*. London: Mathuen and Co., 1965.
7. Chaudhary, K.D. *Preparation of Lesson Notes*. Calcutta.
8. Chaudhary, K.P. *Preparation of Lesson Notes*. Calcutta: Bookland Ltd.
9. Dalen, D.V. *Looking Ahead to Teaching*. Boston: Allyn and Bacon, 1959.
10. Dent, H.C. *To be a Teacher*. London: University London Press, 1947.
11. Devor, John W. *The Experience of Student Teaching*. New York: MacMillan Co., 1964.
12. Exton. *Audio-visual Aids to Instruction*. (McGraw Hill).
13. Eye, G.G. and Lane, W.R. *New Teacher Comes to School*. New York: Harper Brothers, 1956.

14. Gilbaughe, John W. *How to Organize and Teach Units of Work in Elementary and Secondary Schools*. California: Modern Education Publishers, 1957.
15. Greene (George, H.) *Planning the Lessons*. London: University of London Press, 1956.
16. Hanna, Lavone A. and others. *Unit Teaching in the Elementary School*. New York: Rinehart and Co., 1957.
17. Hunter Elizabeth. *Student Teaching. Cases and Comments*. 1964.
18. Kelner, Bernard G. *How to Teach in the Elementary School*. New York: McGraw Hill, 1959.
19. Klarsmeier, Herbert J. and Others. *Teaching in the Elementary School*. New York: Harper and Brothers, 1956.
20. Klarsmeier (Harbert J.) and Wittich (Walter A.). *Selected Multiple-Choice Items to be used with Teaching in the Elementary School*. New York: Harper, 1956.
21. Kulkarni, S.S. *An Introduction to Programmed Instruction*. New Delhi: N.C.E.R.T.
22. Lane, (Howard) and Beanchamp, Murry. *Human Relations in Teaching. The Dynamics of Helping Children Grow*. New York: Prentice Hall, 1965.
23. Longdon, Grace and Stout, Irving W. *Teaching in the Primary Grades*. New York: MacMillan Co., 1964.
24. Lanton, J. H. *Modern Teaching Practices and Techniques*. London: Longmans Green and Co.
25. Lester, Crow. Aliece, Crow and others. *Teaching in the Elementary School Readings in Principles and Method*. New York: David McKay Co. Inc., 1961.
26. McKim, Margaret G. and others. *Learning to Teach in the Elementary School*. New York: The MacMillan Co., 1959.
27. Macomber, Freeman Glenn. *Principles of Teaching in the Elementary School*. New York: American Book Co., 1954.
28. *MacMillans Teaching in Practice—An Encyclopedia of Modern Methods of Teaching in the Primary School Written by Recognized Authorities in Education*. London: MacMillan, 1949.

29. Mcknown, H.C. and Bobert, A.B. *Audio-visual Aids to Instruction*. New York: McGraw Hill.
30. Michaelis, John U. and Dumans, Enoch. *The Student Teacher in the Elementary School*. Englewood Cliffs. Prentice Hall, 1960.
31. Michaelis, J.U. and Grim, P.R. *Student Teaching in the Elementary School*. New York: Prentice Hall, 1955.
32. Ministry of Education, Govt. of India. *Handbook for Teachers of Basic Schools*. New Delhi.
33. Ministry of Education, Govt. of India. *Report of the First National Seminar on the Education of Primary Teachers in India*, 1960.
34. Ministry of Education, Govt. of India. *Problems Relating to Elementary School Teachers to be Examined in the Context to the Prospective Plan*, 1961.
35. Ministry of Education, Govt. of India. *Report of the Study Group on the Training of Elementary Teachers in India*. New Delhi, 1963.
36. Mukerjee, L. *The Art of Teaching Successfully*. Allahabad: Kitab Mahal, 1961.
37. National Education Association for Supervision and Curriculum Department. *Towards Better Teaching—a Report of Current Practice*. Washington: 1949.
38. National Society for the Study of Education. *The Activity Movement*. Illionis Public School Pub. House, 1934.
39. Panton. *Modern Teaching Practice and Teachnique* (Longmans).
40. Richardson, J. Elizabeth. *The Active Teacher*. London: Routledge and Kegan Paul, 1955.
41. Schorling. *Student Teaching* (McGraw Hill).
42. Shave, Harold G. and McSwarier, E.T. *Evlauation and the Elementary Curriculum*. New York: Henry Holt and Co., 1953.
43. Shepherd, L.A. and Ritter, E.L. *Methods of Teaching in Towns and Rural Schools*. New York: College-West., 54 Street, The Drydon Press Inc. 31, 1955.
44. Srivastava, K.N. *Handbook for Training Institution for Primary Teachers: School and Community*. New Delhi: Ministry of Education, 1962.

45. Stone, Margaret R. *Lessons and Lesson Notes—for Student Entering upon a Course of Training*. (2nd edition). London: University of London: University of London Press.
46. Thomas, R. Munrry. *Ways of Teaching in Elementary Schools*. New York: Longmans, Green and Co., 1955.
47. Tyler, Fred T. *Prediction of Student—Teaching Success from Personality Inventories*. Barkely; University of California Prees, 1954.
48. Wagoner, Lovisa C. and Castellanes, Jane. *Observation of Young Children. I. Their Behaviour. II. Their Teaching*. Oakland: the author, 1953.
49. Wingo (G. Max) and Schorling (Raleigh) *Elementary School Student Teaching*. New York: McGraw Hill, 1960.
50. Wiggins, Sam P. *The Student Teacher in Action*. Boston, Allyn and Bacon, 1957.
51. Toakman, Gerald A. and Sumpson, Robert. *Modern Methods and Techniques of Teaching*. MacMillan, 1957.

GENERAL

1. Dutton, Wilbur H. and Hicketh, John A. *The Modern Elementary School Curriculum and Methods*. New York: Rinehart and Co., 1959.
2. *Education for National Integration—A Symposium*. Coimbatore: Sri Rama Krishna Mission Vidyalaya, 1967.
3. Lewis, Gertrude M. *Educating Children in Grades Four, Five and Six*. Washington: U.S. Department, 1958.
4. Manning, Duane. *The Qualitative Elementary School Characteristics of an Excellent Curriculum*. New York. Harper, 1963.
5. Meyer. *Development of Education in the 20th Century*. Prentice Hall.
6. Misner, Paul J. etc. *Elementary School Administration*. Ohio; Charles E. Merrill, 1963.
7. Ministry of Education, Govt. of India. *Report of the Indian Education Commission*. Delhi: Manager of Publications, 1966.

8. Ramanathan, G. *Educational Planning and National Integration*. Bombay: Asia Publishing House.
9. Raymont. *Modern Education: Its Aims and Methods* (Harrap).
10. Department of Teacher Education (NCERT). *Report of the Committee to Evolve Model Syllabi for Elementary Teacher Education*. 1963-65.
11. Rucker, W. Ray. *Curriculum Development in the Elementary School*. New York: Harper, 1960.
12. *School and the Nation*. New Delhi: NCERT, 1968.
13. Washburne. *What is Progressive Education?* (John Day)

